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ABSTRACT

Drawn from an annual symposium held at the University of Guam to recognize and encourage scholarly activities of graduate students in the reading education department and to promote continued interdepartmental dialogue on the teaching of reading, the nine papers in this compilation deal with various approaches to reading instruction. Topics discussed in the papers are (1) individualized instruction, (2) creative thinking ability and its relationship to the reading comprehension and intelligence of fourth grade students, (3) the basal reader approach to beginning reading instruction, (4) the learning contract as a means of improving students' comprehension in the study of literature, (5) the language experience approach, (6) the effectiveness of the basal reader approach, (7) programed instruction, (8) the relationship of self-concept to individualized reading, and (9) the neurological correlates of reading and learning disabilities. (FL)

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PROCEEDINGS OF THE SECOND ANNUAL SYMPOSIUM ON READING EDUCATION

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Convened by

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ACKNOWLEDGMENTS

We acknowledge the efforts of our graduate students and College of Education professors who presented papers for this Symposium.

Acknowledgment with gratitude is also extended to the contributions made by the responders, whose extensive work in the fields of reading, language and bilingual education, have added the necessary "real world" dimension to the discussions following each set of papers.

Special acknowledgment is extended to President Rosa Carter, Academic Vice President Joleen Bock, Dr. Joseph Kivlin, Dean of Arts and Sciences, and Dr. Dale Moody, Dean of Education, without whose support and encouragement this endeavor will not have been possible.

Very special acknowledgment is extended to Dr. Joseph Kivlin also, for his assistance in editing the final manuscript.

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Charleen D. Peryon

CHARLEEN D. PERYON
December 1, 1981

DESCRIPTION

The Reading Education Department of the University of Guam, under the direction of Dr. Charleen Peryon, and the graduate students in reading, held its Second Annual Symposium on reading on November 13, 1981, at the Robert F. Kennedy Library. The purpose of the annual symposium is to recognize and encourage scholarly activities of graduate students in the department and to promote continued interdepartmental dialogue among the disciplines that interface with the teaching of reading.

The event opened with brief remarks by Dr. Joseph Kivlin. He mentioned that because reading is a skill that is acquired very early in life, adults are not aware of all that is required in learning this comprehensive task. Teachers, however, are aware of the tremendous efforts some children need to make in order to succeed as competent readers. Because of this, teachers must continually seek to find more effective ways of teaching in order to reach the most children.

The major focus of this year's Symposium was "Approaches to the Teaching of Reading." Eight papers on this topic were presented by graduate students and College of Education faculty. The papers dealt with basal readers, individualized reading, programmed reading, language experience approach. Two papers dealt with reading and learning problems. One paper presented the findings of a research study on contract-learning.

After each group of papers was presented, a panel of responders reacted by asking questions, presenting different views or aspects of the problems on the information presented, and by adding information from their experiences as practitioners in their respective fields of expertise. The purpose of discussions involving responders was to augment ideas and reports culled from literature by the presenters. No debates were intended.

Attendance at the Symposium was by invitation. Reading and language specialists from the university and public and private educational agencies on the island were invited. Forty persons attended.

PROGRAM

2:00 p.m.	Welcome and Introduction Charleen Peryon, Ph.D. Program Chairperson
2:05 p.m.	Opening Remarks Dr. Joseph Kivlin, Dean, College of Arts and Sciences
2:10 p.m.	Presenters
	Ms. Bobbie J. Simpson, Classroom Teacher - "Individualized Instruction."
	Adelaida Bellin, Ph.D., Assistant Professor - "A Study on the Creative Thinking Ability and its Relationship to Reading Comprehension and Intelligence of Fourth Grade Pupils: Its Implications to Teaching Reading in the Elementary School on Guam."
	Mr. Wayne I. Brown, Reading & Language Teacher - "Programmed Reading: Its Value as a Reading Approach. A Review, 1963-1980."
	Ms. Karen L. Swineheart, Classroom Teacher- "The Basal Reader Approach to Beginning Reading, A Review of the Basal Reader's Development, Use. Code-Emphasis versus Meaning-Emphasis Debate, Vocabulary Development and Comprehension from 1967-1981."
	George Kallingal, Ph.D., Assistant Professor - "The Learning Contract: A Means of Improving Student Comprehension in the Study of Literature."
3:10 p.m.	Comments from Responders, followed by those of the audience.
3:30 p.m.	Presenters
	James Craig, Ph.D., Associate Professor - "Didactic Reading Problems."
	Mr. Paul Taibi, Classroom Teacher - "Compilation of Research on Individualized Instruction." (paper not available)
	Ms. Pamela Sood, Classroom Teacher - "Language Experience Approach."
	Ms. Elizabeth Manibusan, Classroom Teacher - "How Effective is the Basal Reader for Teaching Reading."
	Mr. Turrell Henkelman, Classroom Teacher - "Programmed Instruction."
	Ms. Leah J. Bedford, Classroom Teacher - "The Relationship of Self-Concept to Individualized Reading."
	Charleen D. Peryon, Ph.D., Associate Professor - "Neurological Correlates of Reading and Learning Disabilities."
4:40 p.m.	Comments from Responders followed by those of the audience.
5:00 p.m.	Closing Remarks - Charleen D. Peryon
	Farewell until next year! Si Yuus Maase!

RESPONDERS

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INDIVIDUALIZED INSTRUCTION: AN ALTERNATIVE

Bobbie J. Simpson

Abstract

This review of the literature examines the effects of Individualized Instruction on academic achievement and affective advancement, (i.e., the heightening of one's self-concept and of one's concept of school, teachers, and learning). Further, this paper explores the effectiveness of Individualized Instruction vs. that of Traditional Instruction in the academic and affective areas. The question: Does individualization of instruction provide a viable alternative to the traditional approach? The research strongly supports Individualized Instruction as an alternative as it equals the traditional approach in academic achievement and appears to be far superior to the latter in developing good self-concepts.

The origin of individualized approaches to teaching is difficult to attribute to one man. Some say the history may be traced back to Washburn in 1913 when he described the individualized method used in San Francisco and in Winnetka, Illinois (James, 1979). In Winnetka all subjects were individualized but not personalized. Similarly, in programs such as the Dalton Plan, the child was fitted to the curriculum and there was no choice of subjects studied. Other literature suggests that John Dewey was the first to expouse a truly child centered curriculum (Ciaburri, 1975).

The inability to pinpoint the exact origin of Individualized Instruction is insignificant. The significance lies in the need for an alternative to the traditional approach. Throughout the history of modern education, there has been one basic, overriding concern: What teaching methods are most beneficial to the students? According to the Connecticut Commission for Higher Education, "In the traditional approach to teaching, the teachers give courses of instruction to groups of students according to an established syllabus and within an established frame of time and space...The result is learning which is evaluated by quizzes and exams" (Trivett, 1975, p. 5). There are a number of elements missing in this approach, namely the student, an assessment of his needs, and an evaluation which reflects the meeting of those needs. The traditional approach has proven to be effective in many areas, for many years, but in light of research on the methods most beneficial to the student academically and effectively, the traditional approach begins to lose its foundation.

Of the alternatives to the traditional approach, perhaps the one receiving the most prominence today is the individualized approach which

"...in contrast to the traditional mode emphasizes evidence that learning has taken place regardless of time, place, content, or duration" (Trivett, 1975, p. 5).

It should be noted that the studies cited make reference to specific commercial programs and to various names used somewhat synonymously with Individualized Instruction, but the research bears out that to the degree that any program, commercial or non-commercial, emphasizes the key components of the individualized approach, the results will be consistent. Although commercial programs may differ on specifics, they all conceptually focus on the instructional objective to be taught, the procedures which allow students to acquire skills at individually adjusted rates, and the basis for evaluating competence in each skill area for each individual student.

This paper will survey the effectiveness of Individualized Instruction in the areas of academic achievement as measured by an appropriate standardized instrument and affective advancement as indicated by notated observation. Further, this paper will review what the literature suggests in terms of individualization as an alternative when compared to itself and when compared to the traditional approach.

The literature suggests that as a viable alternative to Traditional Instruction, Individualized Instruction works! On the academic achievement measure, individualization consistently showed significant gains when evaluated only in terms of itself, and it consistenly "held its own" when compared to the traditional approach. The findings rate individualization far superior to the traditional mode in increasing self-esteem. The research cited in parts 1 and 2 of this literature search highly favor individualization

Part 1

Part 1 of this literature search focuses on the merits of Individualized Instruction for its own sake. When evaluated in isolation without pitting it against any other approach or variable, individualization reveals significant gains in individual achievement. The studies cited focus on exceptional children, elementary, secondary, post secondary, and adult students.

Educating the exceptional child has traditionally created a problem in regular classrooms and for good reason. The regular classroom curriculum is not geared toward the individualities of children but toward the commonalities. Bullock and Riag (1979) in their geographically comparative study of the relationship of Individualized Instruction to the placement of exceptional children state: "Group instruction has proven to be ineffective in the past with children who have learning and behavior problems. Individualized Instruction methods have made great strides in teaching children who before were labeled as 'failures', 'dropouts', 'retards', and 'dummies' (p. 7)." One major question of this five sample, 301 school district study was: "To what degree are our (exceptional) kids receiving individualized instruction in the classroom?" One conclusion was that placement in the most restrictive educational environment is a good predictor of the need for Individualized Instruction. Though the study markedly addressed the mainstreaming issue, the foundation or presupposition is that Individualized Instruction must be implemented and enforced for the exceptional child to benefit from presence in "regular classrooms."

A study by Egner (1973, p. 31) of a 4th and 5th grade individualized reading program utilizing team tutors yielded significant results for individualization but more specifically gave impetus to the use of the individualized

approach for the effective remediation of slow learners. This study was conducted on an in-class group of 14 students. The group's range of scores on the Otis Lennon IQ test was 76-92. Fifty per cent of these students had been retained at least once and many had been given social promotions year after year. Each student was assessed, was given an individualized packet, and worked on a one-to-one basis with a tutor. The techniques for this seven month study included: vocabulary pretest, flash card word game, passage reading (first two pages orally; last pages silently), retention test every 10th session, and a point system wherein points were exchanged for paperback library books. It is also noteworthy that upon two consecutive weeks of having achieved 90% accuracy on the passage reading at grade level, the student's daily lessons were from material written on his actual grade level. By the end of this study, nine of the fourteen students were reading at actual grade level and were accurately completing corresponding workbooks. Of the fourteen students, the lowest gain was 1.7 grade levels; the highest gain was 3.5 grade levels. The study also noted that the students smiled more their attitudes about their ability changed, and they were more eager to get to the next book. Average gains of 2.3 grade levels in a seven month study gives strong statistical support to the effectiveness of Individualized Instruction.

Individualization and Summer School Programs

The nature of summer schools and of the students attending present a challenge to school administrators and to teachers. Attendance, always a major factor in the success of a program, is especially important in summer. The District of Columbia Public Schools (1975) via its 1975 Summer Skills Centers, largely minimized this problem of attendance through individualization.

The aim of the project was to meet individual needs of students through Individualized Instruction based upon prescriptive recommendations. Of the 4,253 secondary school students enrolled, 61% attended at least five weeks of the six week program; of the 5,058 elementary school students, 53% attended at least five of the six weeks. Ninety-seven per cent secondary and ninety per cent of the elementary school students received passing grades. Three per cent of the secondary and four per cent of the elementary students received a failing grade. It was concluded that because the program focused on the importance of and the needs of the individual student, each student was more anxious to attend and more eager to learn.

A Case Study

The following section takes up an individualized approch case study which emphasizes total school and other agency involvement in a junior high school (Morton, 1973, p. 43). This case study of a 7th grade student, who attended regular morning classes and who received Individualized Instruction in the afternoon, yielded impressive results. After 65 days of instruction, the student's functional reading level improved from 1.0 to 3/5 under the individualized program. The last 20 days, all assignments were on the high third grade level. The student, in addition to academic achievement, showed marked change in attitude toward his oral reading assignments, from reluctance and hostility to agreement and volunteering. Significant gains were made in both academic and affective areas. It was the conclusion of this study that "It is possible to individualized a junior high school environment; it is worth the effort" (Morton, 1973, p. 46). The writer of this review questions the validity of extending results from a case study to such a large population as a junior high school.

Project Success

Why individualization as an alternative? This five year success story may become a classic reference point in support of individualization. Project Success, a Bloomington, Indiana, Public Schools project, is a program of modified interdisciplinary instruction consistent with the theory of individual differences and Individualized Instruction (Arko, 1975). The students, selected during mid-ninth grade, are those who by test data and by teacher identification would have a more successful entry to senior high by being enrolled in the Project Success classes. The project, finishing its fifth full year, tested 64 seniors (from October '73 to April '75). Twenty-five per cent of the project seniors tested showed a reading skill increase of more than five standard scores above the normal maturation growth for grades 10-12. As an indicator of affective advancement, the students in the project have the option to register for regular classes at the beginning of each quarter during grades 10, 11, and 12. During the past five years, approximately 65% have elected to remain in two or more project classes throughout their high school career.

Statistically, a five point standard score gain above the normal maturation growth is substantial enough to proffer Individualized Instruction as an alternative to the traditional approach.

Adult Education

"Underlying basic education is the assumption that only the literate adult can participate fully in present day American life" (Research for Better Schools, 1972, p. 85). A survey by Research for Better Schools, Inc., of functional reading ability among adults in the U.S. revealed that four per cent of adults 16 years and older (approximately 4,649,000 adults) suffer from serious intellectual deficiencies. What is the most effective

way to remediate these adults? A comprehensive study of 101 students (64 males, 47 females; 54 blacks, 47 whites, 1 oriental; 69 younger than 31, 36 older) at three sites utilized the Individualized Learning for Adults (ILA) and produced noteworthy results. The education of these students ranged from third grade to college with modal grouping at the tenth grade. In communications skills there was a 1.5 grade level advance per 33 working hours. A 2.54 advance was evidenced in math (all areas) per 45.5 working hours. One conclusion to be drawn is that the ILA system, materials, and instructional procedures are effective with different kinds of learners. This is not surprising as "An individualized approach to instruction has long been accepted as the optimum method of teaching the undereducated adult" (Franciosa, 1975, p. 17).

College and universities have been, perhaps, the foremost proponents of the traditional approach to instruction and as such have encouraged basic dependence upon the instructor for delivering instruction and for pacing the rate of progress. "In a truly individualized program, individuals will be encouraged to be different, to question, to dream, to create" (Harver, 1970, p. 6). Certainly, one of the goals of post-secondary institutions is to foster creative, free-thinking, decision-making individuals who will then go on to teach our children, make our laws, and govern our land. Recognizing some of the restrictions of traditional delivery in fostering these ideals, some colleges are conducting research and are trying pilot programs to determine the viability of an individualized college curriculum. The first phase of the Non-Traditional Community College Report (Lofton, 1973, p. 28) concluded: "The learning mode and pace which best overcomes barriers which impede would-be learners from pursuing their learning needs is the non-traditional approach."

Conclusions

Individualized Instruction, when evaluated on its own merits, yielded gains in academic achievement and in affective advancement when age, race, education, and physical factors were controlled. The research cited included a wide range of learners, with results that appear to firmly establish Individualized Instruction as a formidable alternative to the traditional approach to teaching.

Part 2

When compared only to itself, the individualized approach fares quite well, but how does it fare when compared to other approaches? Part 2 of this literature search will compare Individualized Instruction with Traditional Instruction on academic and affective measures.

In a study sponsored by the University of Colorado, Denver, Department of Sociology, five parochial open elementary schools and two traditional parochial schools were evaluated in terms of academic and affective criteria. "Open" schools emphasize curriculums geared to individual interest and to teacher-student negotiated contracts for learning. The findings, which took into account sex, race, income level, and differences in the school, concluded that the schools made the differences. "These open schools held their own with the traditional schools in so far as students' scores on standardized achievement tests were concerned, but they were strongly superior in their effects on attitudes toward teachers and schools" (Franks et al, 1976, p. 18). The "open" school students generated statistically significant differences in a positive direction in general self-esteem and in specific school-related self-esteem.

A second study focusing on a comparison of "continuous progress" and "traditional" classrooms in three middle schools again yielded favorable results for Individualized Instruction (Evans, 1973). The aim of the study was "to improve the individualization of instruction at the middle school level" (Evans, 1973, p. 4). "Traditional" here refers to a regular, self-contained class moving together through a textbook. "Continuous progress" refers to a plan adopted by which students might progress individually and independently through packets of math acttivities of increasing complexity as grouped in phases and levels. At the beginning of the school year (1972-73), parents at the middle schools were given the opportunity to choose either "continuous progress" or "traditional" classrooms for their children. Thirty-two per cent of the 6-8th graders chose the traditional classroom; sixty-eight per cent chose "continuous." At the 6-7-8th grade levels, results reveal consistently superior test success for "continuous progress." Sixth and seventh grade "continuous" students' scores exceed the traditional in 14 of 15 skill areas. The 8th grade "continuous" students exceeded the others by 12 of 15 skill areas. Spring and fall measures of math competence indicated that students in "continuous progress" classes excelled those of "traditional" students at all grade levels, usually by .10. Again the study suggests noticeable change in attitude and in outward expressions such as smiling for the "continuous" students.

Individualized Instruction at the College Level

In the two studies cited above, the individualized approach was superior to the traditional approach in elementary and middle schools. This final study measures the effect of a student centered, individualized method vs. the traditional method in the teaching of drama as a literary

form (Ciaburri, 1975). The study, comprised of 87 freshman (28 males and 59 females) at South Central Community College, determined that cognitive learning takes place similarly by both methods. The results of a t-test administered to the final scores revealed no significant difference in the knowledge acquired by the groups. However, "Other aspects of the new method make it more feasible for use in not only the teaching of drama but also in the teaching of other literary genre" (Ciaburri, 1975, p. 9). As drama and other literary forms call for the individual and collective expression of ideas and interpretations, one might anticipate that these forms lend themselves less to the use of individualization than do other content area forms of teaching and information gathering.

Conclusions

As the need for competency in every area of life becomes more apparent, it becomes clear that the traditionally-based, class-centered progression will no longer suffice. The research cited in Parts 1 and 2 of this review of the literature indicated that Individualized Instruction, with its emphasis on the assessment of individual needs, produces favorable results in the academic and affective areas. Further, it was found that Individualize Instruction is a suitable and effective alternative to the traditional approach to instruction.

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A STUDY OF THE CREATIVE THINKING ABILITY, ITS RELATIONSHIP TO READING COMPREHENSION AND INTELLIGENCE OF FOURTH GRADE PUPILS: ITS IMPLICATIONS FOR TEACHING READING IN THE ELEMENTARY SCHOOLS ON GUAM

by Adelaida P. Bellin, Ph.D.

ABSTRACT

This study was designed to find out if a significant relationship exist among measures of creativity (verbal and nonverbal fluency flexibility originality, and elaboration), basic reading ability, and intelligency of fourth grade pupils.

The sample consisted of 250 fourth graders enrolled in seven randomly selected Saint Paul, Minnesota public schools during the school year 1965-1966. The minnesota Test of Creative Thinking verbal and nonverbal forms (abridged) were used to determine the creativity level of the subjects. The reading test of the Iowa Test of Basic Skills was used to measure the basic reading ability. Intelligence was tested with the Lorge-Thorndike Intelligence Test, Level 3 Verbal Form A.

Results of this study indicate that intelligence is very positively related to creativity and reading. A highly creative child may be more likely to perform well in reading achievement. Likewise, a less creative child can be expected on the average to perform on a somewhat lower level of reading achievement. However, in the comparison of the general means in the reading scores of the most and least creative groups when intelligence was controlled, none of the comparisons were significant. This indicates that verbal intelligence is likely to be related to reading performance to a greater extent than creative thinking ability.

Implications to teaching reading in the elementary schools on Guam: The high positive relationship between intelligence and reading has long been established. Based on this statistical finding, many classrooms in the nation use ability grouping in adjusting for individual differences in the classroom as well as for instructional purpose. This study supports this contention. The teachers can predict reading ability better on the basis of intelligence than on creative thinking ability.

While it is true that the findings refer only to the 250 fourth graders tested in seven St. Paul, Minnesota public schools, the educational implications of the study should be noted and dealt with in any place where teaching children to read to learn is a very serious endeavor. Creative teaching could be applied to any approach of teaching reading. The elementary schools on Guam have a very multilingual and multicultural population. This fact should be an interesting challenge to teachers of reading. The most common current practice in the teaching of reading are: the phonics approach, the language experience approach, and a variety of types of the linguistic approach. There are also some unique but moot ways such as words-in-color, initial teaching alphabet, and computer-assisted programs. The Basal Reading Program, specifically the Laidlaw Series, is used currently on Guam. This approach to reading provides a series of basal materials that is supposed to provide a systematic and sequential development of all the skills, understandings, and abilities necessary in interpreting written symbols (the total reading act).

Types of Grouping

Teachers must be skillful at planning and organizing their classrooms by using several types of grouping procedures. Such decisions depend upon the specific learning goals of the children. Basically, the class grouping can be handled in one of three ways: whole groups, small groups and individual learning. Every classroom at various times should integrate all ways, depending on the students' needs. Here are some types of grouping commonly practiced by teachers.

Large groups which are very practical at times because there may be teaching of skills and abilities which are necessary for the entire class. Such grouping is appropriate for storytelling, related reading activities such as art work, teaching study skills, and using the library.

The skills group is based on diagnostic findings related to the pupils' specific needs and strengths. Such grouping brings together a small group of children with the same instructional goals. Once the skills are mastered, the group is dissolved or another group is formed for other learning skills. Normally this group is formed to help the children acquire mastery in such skills as word identification and specific comprehension skills.

Interest groups may be formed on the basis of a common interest. Group members can be on different instructional levels but they may have one common goal such as production of a play or construction of a model.

Research groups are formed to accommodate children who are interested in a special topic. They can conduct research, write reports,

produce works of arts and synthesize the information they have gathered.

Ability grouping requires the grouping of pupils on the basis of previous learnings and present instructional needs. This pattern is used currently on Guam. This plan has been popular for many years and still is considered the most sensible by many educators. The children are grouped by teachers for reading instruction during various times of the day. Groups are flexible and children may be shifted from group to group as their reading problems change. Children are basically under the guidance of one teacher, and she is responsible for helping each child. The groups are built around common problems of the group members. The Guam elementary schools use the three-level editions of the Laidlaw Series for each grade, namely the prebasic edition, the basic edition and the expansion edition. Thus, the children work with materials geared to the ability level of their group.

The teacher's manual proposes that teachers follow specific steps when teaching a story out of the Laidlaw Series. The suggested steps are:

1. Preparing to read (the teacher suggests a motivation, establishes a background for reading, and introduces new words.)
2. Guiding the pupils' silent reading (states purposes for reading the story, asking guide questions, having pupils answer aloud, and providing for individual differences.)
3. Providing help in the interpretation of the material (includes leading a discussion of the story in terms of purpose, having

the children reread parts for specific reasons, and stimulation critical thinking.)

4. Developing the pupils' skills (includes the application of skills and abilities and the subsequent checking of comprehension with work sheets and workbooks.)
5. Enrichment activities (include dramatization, art work, library books, and other related reading activities.)

Developing Creativity through the Basal Approach

The question that comes to mind in reading the basal readers and the manuals that accompany them is, How scientific is this sequence of steps in the teaching of reading? Possibly, the answer is not certainly. The child reads what he had been motivated to read. He masters new words as he encounters them in his reading. The stories he reads are imposed on him out of the basal reader. Consequently, the steps suggested by the manual can be challenged by more creative approaches to reading.

The most common method used by teachers to introduce a story is by using the illustrations in the book coupled with a brief discussion to familiarize the group with the concepts in the story. When preparation is needed for the material, it is always material that is being imposed on the child for reasons other than his own. Using the same approach every day soon kills that particular approach as a form of motivation. A different approach every day is a creative approach to reading.

Interpreting the story in most manuals means asking the children a series of literal level questions that check comprehension largely

through predetermined acceptable answers. These questions make little allowance for divergent thinking or for the child's own interpretation of the story. Questions could be more creative and could place more emphasis on the creative if they dealt more with the literary value of the story. For example:

"I felt like singing some of the words in this story. Did any of you feel the same way? What words did you feel like singing?"

On page 20 the author described the boy's feelings when he got lost in the crowd of Christmas shoppers. The boy told himself how to react to the situation. Did any of you have this experience? What words did the author use to do this?

These questions allow a child to give his interpretation of passages through his own feelings and taste rather than those imposed on him by the values of his teacher.

Torrance (1965) stated that the objective of the teacher in developing creative readers is to get the pupils to do something with what they read either during or after reading. This can be achieved through the art and skill of the teacher in asking questions. This means too, that the teacher needs to go beyond the literal-level type of questions. It is a fact that teachers find difficulty in framing questions that call for creative response.

Skill lessons, those that grow out of an experience with a story, can be motivating and creative. Games, creative dramatics, learning centers are devices that add color and fun to skills lessons. The cut and dried mimeographed worksheets and pages of workbook exercises do

not contribute to enthusiasm and intrinsic motivation to learn and master specific skills in reading.

Enrichment activities, the last step in most manuals, should come first. If the logical sequence of language development proceeds from experience to listening to oral expression to reading to written expression, then the kind of experiences often suggested in the manuals under enrichment should logically come at the beginning of the lesson. Stories about farms, cows, sheep, horses, equipment, and the country, as well as movies about them, slides about them, and pictures of them, provide a logical vacarious experience for children who cannot have a direct experience visiting the farm. The words (the vocabulary) of the farm get into the children's speech in meaningful context so that the children understand the words when they read them in print. Experiences are basic to the development of reading vocabulary and should precede the teaching experience rather than follow it. This point must be stressed here especially in reference to an earlier point mentioned about the multilingual nature of Guam school children. They are taugnt to read books written for native speakers of the English language. Thus, these children should be given a program of sound saturation in English before they are seriously expected to comprehend what they read in the basal readers. Dramatizations, filmstrips, role-playing, dioramas, etc., all contribute to a reading program than just enrichment. They can provide the core to meaning in reading and will develop creativity in children as well.

Consequently, the rigid adherence to steps in a manual can be greatly challenged. No research proves that the basal reader approach can produce

better results than other methods. In the light of the findings on the study of creative behavior, basic reading ability and intelligence, and the use of newer teaching strategies, these steps may be antiquated and irrelevant. Certainly, when they are rigidly followed, they curtail the creativity and resourcefulness of the teacher and the children.

RECOMMENDATIONS

1. Teachers can use different creative comprehension strategies to challenge the slow, average and fast moving groups in their classrooms. Such questions should go beyond the literal comprehension level for the average and fast-moving readers in the class. More inferential and analytical types of questions should be asked.
2. Oral rereading may be involved with children reading favorite parts or specially funny parts: reading of specific parts which clarify points in the discussion following the first reading.

   b. Reading the whole story because it lends itself to oral reading through a play on sounds, or special words.
3. Creative dramatic is a great opportunity for self-expression as well as opportunity to answer numerous questions after reading.
4. Extension of skills may be whole-group, part-group or individual work. Creativity may be nurtured in this phase of the reading lesson through:
   a. Word attack skills can be presented in pleasurable activities such as games and art work.
   b. Films and film strips may be used to develop better understanding of the locale of the story, a process discussed in the story or the difficult concepts discussed in the story.

c. Popular magazines, trade books or resource books may be used to further knowledge of the people, animals, places, or facts in the story.

5. Creative writing and provision of different molds such as colors, music, visual arts enrich the comprehension of the children.
6. In summary, teachers should branch out of the cut-and-dried approach to teaching reading as prescribed by most teachers' ideas.

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Programmed Reading: Its Value as a Reading Approach

A Review, 1963-1980

Wayne I. Brown

Abstract

Programmed reading instruction is a valuable teaching tool that has made a significant impact upon reading instruction during the past two decades.

Programmed reading implies teaching with either 1) machines, 2) printed, consumable student workbooks, or 3) teaching with no pupil materials at all as when direct instruction is employed.

All three programmed formats are addressed in this paper in the context of what data-based research has revealed about their effectiveness and impact upon reading instruction over the past decade-and-a-half.

Programmed Reading: Its Value as a Reading Approach

A Review, 1963-1980

Programmed reading instruction is, in most instances, an auto-instructional technique which involves the presentation of information to the learner in small, carefully sequenced steps of increasing difficulty. Each task is small enough that it can be met successfully and yet lead the pupil closer to full mastery. Because the mastery criterion is 100% in all cases, by-passing of any step without mastery is prohibited and thus instruction is considered to be fail-safe (Fry, 1964). Furthermore, the burden of the teaching-learning process is placed on the Program; if the learner fails to learn, the Program is held to be at fault, not the learner. When this happens, the Program is revised again until it performs as desired (Fanning, 1965).

Programmed machines, which are popularly referred to as Computer-Assisted Instruction (CAI) are traceable as far back as 1924 when Dr. Sidney Pressey used a machine for grading multiple-choice exams. B.F. Skinner at Harvard in the late 1950's improved and expanded the concept (Franzel, 1980). Test-data on reported research shows both significant and insignificant value of mechanized programmed instruction. Research establishing superiority for machine instruction in reading is substantiated by the following studies reported by Palmetier (1971) during the last decade.

1. The Hoffman Reading Program in the early 1970's with predominantly Spanish-speaking 7th graders at the Portrero School in El Monte, California substantiates a mean grade placement gain of one year

and three months on the Comprehensive Test of Basic Skills compared to only a two-month gain for the 78-student Control group taught by standard teaching methods.

2. Experimental use of the Edison Responsive Environment (ERE), better known as the Talking Typewriter, in an Atlanta Public School project reported that during a two-month period students gained from two to four months in achievement test performance.

3. Another use of the ERE in Freeport, Louisiana demonstrated the machine's ability to provide for initial reading instruction and did so at a more rapid rate than the enriched traditional program used with the Control group.

Additional data which establish superiority for machine instruction are reported by Strang (1971), in which an assessment was made of the effect of an automated tutoring program in teaching practical reading skills to disadvantaged sixth-graders. During instruction, Control students remained in their classrooms. After instruction, all students were retested on 51 skills. Average gains of the Experimental group were significantly higher than the Control group's. While Experimental students showed greatest cross-test gains on skills trained during instruction, they also showed considerable improvement on the remaining instructional skills.

Yet another study that establishes significant value for computer-assisted instruction is reported by Brebner (1980) in a follow-up report of the Belvedere Parkway Elementary School in Calgary, Vancouver,

Canada, in the late 1970's. The mean performance of the school's grade six students gradually increased in five years time from the 25th percentile to the 55th percentile. More importantly, the study confirmed that the attitude change brought about by the program was significant. The sixth-graders increased their library usage and quality of all reading-based work because, reportedly, during the course of their programmed reading instruction they were made to recognize performance objectives which supplied a reason to use what had been learned and to learn more. Furthermore, these sixth-graders proceeded to junior high school where, teachers confirmed, there was significant improvement in the attitudes toward school and learning.

Except for the above studies, the most reported finding is that computer-assisted reading instruction does not show significant superiority over other non-programmed approaches to reading. That the value of CAI is still largely unanswerable from a research viewpoint seems mainly due to three factors suggested by Franzel (1980).

1. It is an extremely expensive and inefficient form of programmed instruction compared to programmed instruction that can be presented in a very low-cost, printed book format.

2. The time and effort required to convert programmed instruction materials into a computer program is prohibitive.

3. Standardized computer-programmed materials have never been commercially available. There has never been a computer aided instruction publisher as such and few instructors have the desire or expertise to do this.

Wherever research of CAI is reported, teacher and pupil attitudes on the value of mechanized programmed instruction are a critical issue. Several studies report mixed reactions to machines. Tobias' (1963) showed that teachers seem to be skeptical of machines and automation. Tobias found that such terms as "teaching machine" and "automated instruction" were disliked by teachers. Slightly less threatening were such terms as "programmed texts" and "programmed instruction." But the teachers seemed to feel more at home with such terms as "flash card" and "workbook." Though this study was not done on reading teachers, per se, Tobias presumed it applied to them equally. Millmann (1963) reports that, generally, compared with a traditional approach not specified in the study. At the end of the school year, a higher percentage of the children in the Control group read at or above grade level on the group formal reading inventory. However, at the end of the third year, this trend was reversed. No significant differences in favor of the Experimental group were found between groups on the Iowa Test of Basic Skills at the end of the third year.

2. Another study by Hammill & Mattlemann (1969), conducted in Philadelphia public schools reported no significant differences between children using the Sullivan materials and a Control group.

3. More positive results, however, were reported in three Denver public schools (Hammill & Mattlemann, 1967). Children using the Sullivan materials obtained significantly higher reading achievement scores than the Control group.

4. The Burgess Elementary School, Sturbridge, Massachussetts study finalized in 1968 (Hammill & Mattlemann) used Sullivan Programmed Reading in one class of first-graders in 1966 and continued the program through the second-grade. The first-grade teacher used the program again with her 1967 class. An evaluation was conducted of the use of programmed reading for these two groups as compared with the use of the Scott-Foresman basal readers for other first- and second-grade classes in the same school. The advantages of programmed reading over the basal reader included greater independence. Children using the programmed reading learned to work independently for longer periods of time.

5. A more completely documented and extensive study was conducted by Colorado Springs School District 11 in 1965-1966 (Liddle, 1967). The District decided that one first grade in each four schools would use the Sullivan programmed reading materials exclusively. A Control group in each school was set up to use the McKee basal reading series from Houghton-Mifflin. The four schools represented areas of high socio-economic status. The children's I.Q.s ranged from very low to very high. It is significant that the Experimental group in this study was considerably disadvantaged because of the large turnover rate in the schools. All new first-grade pupils entering the District during the year were placed in programmed reading classes. Pupils in the Experimental group numbered 114. In the Control group 113. Instruction was given for 180 days. The Experimental and Control groups were very

similar in levels of reading readiness and in I.Q. at the beginning of the year. Combining the four Experimental groups and four Control groups at the end of the 180-day period, statistically significant differences were found in Word Knowledge ($p \leq .02$), Word Discrimination ($p < .01$), and Total Reading ($p. < .01$), all in favor of the Experimental group.

6. The San Francisco Unified School District in the 1968-1969 school year measured performance of 1,276 Project READ pupils. Twenty-seven (27) schools participated. Pupils were pre-tested in May 1968 and posttested in May 1969 with the Stanford Reading Test. Summarizing the results of the Project, Jenkins (1969) reported that 10 of the schools showed one year or more reading growth, and that the other 10 showed eight or nine months of grading achievement.

7. Rollins (1970) reported that a school in Belcher, Louisiana, during the 1969-'70 school year also participated in Project READ. One thousand two hundred ninety (1,290) children in grades K-through 12 were given the Stanford Achievement Tests and California Achievement Tests as pre- and post-tests. The Lee Clark Reading Readiness Test and Sullivan Reading Placement Tests were also used. Data collected indicated a six-month average gain in grade placement, compared to a 3.2 month expected gain.

8. Della-Piana (1967) reported a study launched in Salt Lake City, Utah schools in 1967. The study compared the effectiveness of Sullivan Reading and currently used basals in first-grade classrooms. Programmed reading was installed in 12 classrooms. Eighteen (18) Control classes

using basal readers were randomly selected from among first grades in the District. Results indicated significantly greater gains favoring the Experimental group for the high and middle-ability students on Vocabulary and Comprehension in the two criterion tests administered three months apart. There was no significant difference between the low-ability students of Experimental and Control groups. The results of this study were interpreted to mean that overall programmed reading yields achievement gains equal to or greater than the currently used basals on measures of Vocabulary and Comprehension.

Whereas programmed reading instruction is essentially auto-instructional, as in the case of CAI and the Sullivan Readers, it manifests itself as a totally teacher-directed approach when direct instruction is employed. Most recent of the innovative programmed reading approaches that have emerged during the past two decades, direct instruction is unique in that pupil materials are not essential. No machines or workbooks are necessary, save for a teacher programmed presentation manual which follows methodology common to all programmed materials, namely 1) structured presentation of tasks, 2) structured practice, and 3) immediate testing for mastery. Direct instruction has been popularized by the DISTAR System published by Science Research Associates. DISTAR is a registered trademark of SRA and an acronym for Direct Instruction in Arithmetic and Reading. This method relies heavily upon hand signals and physical commands because it intentionally attempts to replicate the lower socio-economic mother's communication

style at home. DISTAR duplicate this authoritarian one-way communication format since it appears to be a part of the child learning style (Ogletree, 1977). Originally intended for pre-school and primary children, DISTAR is designed to be used with any children who have not learned, for any reason, the basic skills they need in order to succeed in school (Guinet, 1971).

The number of data-based studies on the effectiveness of the DISTAR reading approach is not as large as that which exists for the programmed Sullivan Readers for the simple reason that DISTAR is a more recent introduction. However, enough research is documented that enables one to judge DISTAR value as an effective teaching approach. While most earlier studies have been conducted on a small scale and necessarily show inconclusive evidence for its edge over any other reading method, one mammoth nationwide study (Abt Associates, 1977) gives powerful evidence of its superiority.

Representative of the small-scale studies conducted during the early 1970's are the followning two:

1. Kaufmann (1973) reports the effect of the DISTAR system in a comparative evaluation carried out in Winthrop, Massachusetts during the 1972-'73 school year. The results showed that the DISTAR Program for first grades had no conclusive advantage over traditional instruction for the development of reading achievement. Second-grade DISTAR pupils scored below placement in Word Meaning, Word Study, and Paragraph Meaning. Since these children were initially selected for the DISTAR program on the basis of low readiness scores, performance below grade

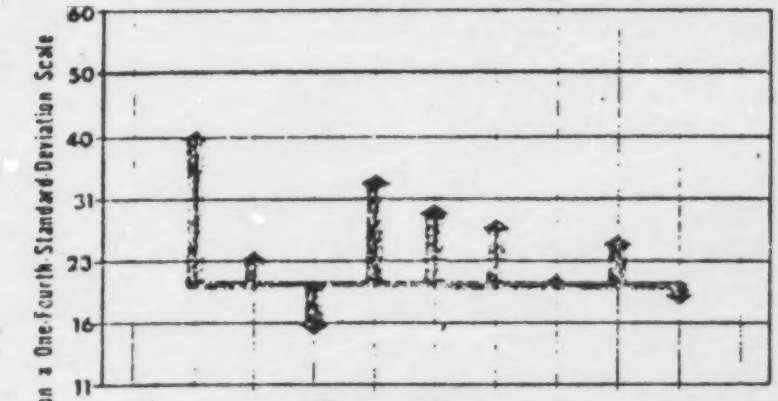
level was not unexpected. The DISTAR pupils overcame the discrepancy between grade placement and achievement that existed at the end of the second grade and as a group performed at grade level at the end of the third grade.

2. McCabe (1974) reports the effectiveness of the DISTAR Reading and Language Program as a method of beginning reading instruction. The subjects in the Experimental DISTAR group were 24 pre-kindergarteners, 60 kindergarteners, and 68 first-graders. The subjects in the Control group were 24 pre-kindergarteners, 61 kindergarteners, and 72 first-graders. The Peabody Picture Vocabulary Test was used on a pre-and posttest basis. The Boehm Test of Basic Concepts and WRAT in reading were used on a posttest basis only. The results showed that the first-grade children in DISTAR averaged 6.4 gain between A and B forms of the Peabody Vocabulary Test, while the first-grade children in the Control group averaged a 3.5 gain between the two tests. Also, the kindergarten children in the Control group did not reach this level when entering the first grade. However, on the Boehm test of Language Concepts, the Control group scored higher than the Experimental group.

Pre-eminent among all studies that have evaluated the effectiveness of the DISTAR programmed method is the U.S. Office of Education Evaluation of Project Follow-Through (Abt Associates, 1977), a comprehensive study of different approaches to teaching economically disadvantaged children in the primary grades. A result of nine years work at a cost of 500 million dollars and finalized in June of 1977, it is

the largest controlled education experiment to date. Nine different models of instruction were tested in 139 communities and evaluated for stability of results over successive program years. Model programs were implemented in kindergarten through third grade. The programmed direct instruction model outperformed all other reading models in K-3. In fact, it was the only one to demonstrate achievement above grade level. TABLE I graphically displays reading performance of the nine different models as measured by the Metropolitan Achievement Test (MAT) of Total Reading.

TABLE 1.

M.A.T. Total Reading

	Direct Instruction	Parent Education	Southwest Lab (SEDL)	Behavior Analysis	Bank Street	Responsive Education	Cognitive Curriculum	TEEM (Arizona)	Open Education (EDC)
%-tile	41	24	15	34	30	29	21	26	18
S. S.	58.3	52.9	49.6	55.8	55.1	53.8	51.5	53.7	50.6
G. E.	3.23	2.68	2.43	2.98	2.91	2.78	2.55	2.77	2.48

Grade equivalent for 50th percentile is 3.5

Of all the proponents of the different approaches to reading instruction, probably none come as close to being as idealistic and boldly enthusiastic as the supporters of programmed instruction. Ofiesh (1964) seems to speak for them all when he says:

> If we ever develop a valid [programmed] instructional technology, the teacher will gain prestige, because he will be able to actually structure productive learning experiences for students. Learning experiences will be so significantly superior that they will be convincing to all (p. 7).

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THE BASAL READING APPROACH TO BEGINNING READING: A REVIEW OF THE BASAL READER'S DEVELOPMENT, USE, CODE-EMPHASIS VERSUS MEANING-EMPHASIS DEBATE, VOCABULARY DEVELOPMENT, AND COMPREHENSION DEVELOPMENT FROM 1967 to 1981

Karen L. Swineheart

Abstract

The basal reader approach to the teaching of reading first began to develop with the introduction of the McGuffey Readers in the 1830s. Since that time, they have been widely used in many countries and especially in the United States. Many companies have produced a wide variety of materials. Research indicates that the basal readers which use a code-emphasis approach are more successful than those using a meaning-emphasis approach in developing independent readers; that the vocabulary development of current basal readers is more varied, richer, and less restricted than former publications; and that the development of comprehension skills is more concerned with assessment and practice than with direct, explicit teaching of skills needed for comprehension. Due to their widespread use and acceptance, the basal readers are major teaching tools. They are a sequenced, graded-in-difficulty, group of materials for teaching developmental reading. Research considering their use and effectiveness is extensive and varied in its results.

THE BASAL READING APPROACH TO BEGINNING READING: A REVIEW OF THE BASAL READER'S DEVELOPMENT, USE, CODE-EMPHASIS VERSUS MEANING-EMPHASIS DEBATE, VOCABULARY DEVELOPMENT, AND COMPREHENSION DEVELOPMENT FROM 1967 to 1981

The basal reader of today represents a publisher's attempt at the development of a preplanned, sequentially organized group of materials and methods for teaching developmental reading. Basal readers have traditionally followed the pattern of the McGuffey Readers of the 1930s which featured controlled vocabulary, gradually increasing difficulty, and content aimed at being interesting to many.

In the United States and in many other countries of the world, the basal reader is the basic, favored approach for teaching reading. Southgate, in a Reading Teacher article reflected on the problems with the use of basals in the Informal British Primary Schools. She said the teachers used the basals not as a core, but as a whole reading program, and that they were overdependent on workbooks for teaching skills, used excessive oral reading without real purpose, and were hindered by a perfectionist attitude toward learning the precise basic vocabulary.

The New England Educational Assessment Project of 1969 found that 95 percent of New England's classrooms used the manual of the basal series as the basis for the reading program. Twenty percent expanded their programs to also use a guide developed within the school system.

George and Evelyn Spache (1977), in a survey of 1300 teachers, reported that 95 to 98 percent of those surveyed used the basal reader approach. Eight percent used basal readers every day.

Research presents various results as to the success of the basal reader approach. Wright (1975) said 15 to 25 percent of the children he studied had insufficient reading skills and failed to meet the demands of the intermediate grades.

In the book How to Increase Reading Ability by Harris and Sipay (1977, p. 73), discussion concerning basal readers ends with the following reminder:

> Until more evidence is available, it seems that for most children, a balanced electic approach that uses visual, auditory, touch and kinesthetic cues in combination, and develops word identification and comprehension simultaneously, seems safer and less likely to produce difficulties than any other method that relies primarily on one sensory avenue or stresses one important side of reading while neglecting another. When a child continues to fail a given reading program, consideration should be given to employing a program with him that utilizes different methodology.

The success of the basal reader approach has been the subject of much debate among various authorities. Research studies have examined areas unique to basal readers. Some of the questions considered in research and reviewed in this paper are: Shall we use the code-emphasis

approach or the meaning-emphasis approach? Is it better to use a small, strictly controlled vocabulary or to expand to the use of more words and a richer vocabulary sooner? How does a basal reader develop comprehension skills, and do basal readers of today actually develop the comprehension skills they profess to develop?

Code-Emphasis or Meaning-Emphasis

For several decades, a debate has continued over the meaning-emphasis approach versus a code-emphasis approach.

In the code-emphasis approach, the child starts with the letters of the alphabet and gradually moves to words, phrases and sentences. He starts with the sounds represented by the letters, moves to letter-sound combinations, and learns to sound a word by letter or letter groups, thereby learning the word. Many phonics methods were developed during the nineteenth century, including some which used diacritical markings to standardize the sound-symbol relationship, and others which modified the alphabet with new letter forms such as the Initial Teaching Alphabet.

Harris (1977, pp. 55, 56) summarized the criticisms of the phonic methods:

> 1) The English language has so many irregularities in its sound-symbol relationships that an adequate phonic system has to be quite complicated and difficult. 2) The synthetic methods tended to produce slow, labored reading. 3) These methods encouraged attention to the

mechanics of word recognition and did not give enough attention to the thought-getting side of reading. 4) It is impossible to pronounce a word one sound at a time with accuracy, and many children have great difficulty identifying a word after sounding it.

Horace Mann, before the middle of the nineteenth century, encouraged the word method or the meaning-emphasis approach. The child started with whole words and moved to phrases, sentences, and stories. Harris (1977, p. 56) summarized this approach which has also been called the "look-say" method in the following sentences. "The method is based on the idea that a written word is not merely a sequence of letters but has a distinctive recognizable character of its own. The classical example was that a cow is not seen as a head, body, four legs and tail, but as an animal with a distinctive appearance."

Laurie Ann Forman (1977) examined teachers' manuals and workbooks from three basal reading series published in the 1930s, 1950s and 1970s for differences in the amount of material given to word-attack skills which she defined as the use of phonic and structural analysis for successfully attacking unrecognized words. She found that the amount of attention to word-attack skills was double, in the 1970s, that of the two earlier decades, that all three series increased this attention in the 1970s' materials, and that the three companies were similar in their emphases during each of the three time periods.

Dystra (1974) in a review of relevant research over a sixty-year period, concluded that a code-emphasis approach was more effective than

a meaning-emphasis approach. He said it brought children to independent reading sooner.

An analysis of textbooks in relation to declining S.A.T. scores, by Chall (1977), indicated that children in grades one to four were ahead of those five-to-ten years earlier reading achievement. One factor which, she felt, may have contributed to higher reading achievement was the stronger decoding programs introduced in the late sixties and early seventies.

Carnine reported a 1965 study by Gurren and Hughes which reviewed twenty-two comparative studies. In studies that evaluated the performance of slow learners, the groups taught with code-emphasis programs showed significant favorable differences. He also cited six studies of high intelligence children in which significant differences favored the code-emphasis groups.

Carnine (1979, p. 65) went on to report his review of research as follows:

> Research reported by Dykstra (1968) on end-of-school grade effects, and Bond and Dykstra (1967) on end-of-first-grade effects, confirmed the superiority of a code approach in teaching word recognition and spelling. Bleismer and Yarborough (1965) who compared code-emphasis and meaning-emphasis beginning reading programs during first grade, made 125 comparisons in the areas of word reading, paragraph meaning, vocabulary, spelling, and word study skills; 92 differences significantly favored the code approach.

Carnine (1979, p. 65) ended his review of the research with the following paragraph:

> As important as the type of program used is how a program is used. Harris and Sipay (1975) concluded that the quality of administrative leadership and teacher skill was more important than differences in methodology. We agree with their conclusion. One cannot simply support a code-emphasis approach without insisting on its being well-implemented. A code-emphasis program that is not well sequenced, provides inadequate practice, or does not teach strategies effectively will not produce optimal growth in all students.

Vocabulary Development

Concerning vocabulary development in today's basal readers, the question has been asked: Is it better to use a small, strictly controlled vocabulary or to expand to the use of more words and a richer vocabulary sooner?

Harris (1977, p. 125) reviewed vocabulary development in his 1972 writing:

> From the 1920s into the 1950s publishers vied with one another in reducing the number of words introduced in a basal reading series. The bottom was reached when one series taught fewer than 1,200 different words in its readers for primary grades.

In the same article, Harris stated that recent series used richer vocabulary, but most did restrain vocabulary development to a certain extent through the sixth grade.

Rodenburn and Washburn (1978, pp. 885, 886), in an article entitled "Some Implications of the New Basal Readers," stated, "Perhaps the greatest change that has occurred in the new basal readers is abandoning the controlled vocabulary principles." They said that the rate of introduction of new words was slow and devoted to complete mastery.

Rodenburn and Washburn reviewed and compared the vocabulary development at the first grade level for four major publishers. They said:

> In most of the new basal programs all of the words are not introduced directly to the children. Since these programs teach phonics and other word attack skills early in the first grade, certain 'decodable words' are left for the children to sound out. This has led to an increase in the number of words included in most reading series at first grade level.

Their comparison showed an increase in the total number of words included in first grade programs varying from 89 in one program to 340 in another program. With that change in vocabulary load, they noted that, "...new words are not necessarily repeated several times following their introduction." In older programs, the word was repeated six to ten times immediately following its introduction. In newer readers, they charted far less frequency of repetition of newly introduced words.

Another factor noted by Rodenburn and Washburn concerned the wide variance in vocabulary of different basal readers series.

Jerry L. Johns (1976, pp. 4, 5) discussed his study of the percentage of Dolch words used in four basal reader programs. The Dolch word list has been used since it was developed in 1936 as a basic vocabulary. Dolch claimed that his 200 words accounted for over 50 percent of the words in basic reading materials.

Johns calculated the percentage of Dolch words used in four basic readers published since 1970. He said, "...it can be noted that the Dolch list still accounts for over 50 percent of the words in every book assessed, regardless of the particular basic reading series."

Research focused on vocabulary development in current basal reader series indicates a richer vocabulary developed more quickly with fewer repetitions after the introduction of a word.

Comprehension Development

How does a basal reader develop comprehension skills, and do basal readers of today actually develop those comprehension skills as they claim?

Carnine (1979, pp. 53, 54) noted two problems most basal reader programs have in developing comprehension skills:

> Nearly all commercial reading programs are characterized by two critical instructional design deficits in their handling of comprehension: insufficient practice and inadequate teaching procedures. First and foremost is insufficient practice. In the typical program, a new comprehension skill or vocabulary word often appears in one lesson and then disappers for

> several weeks only to reappear again in a single lesson. Programs seldom provide enough introductory or review examples for instructionally naive students either to master a new skill or to remember it.
>
> The second problem is the lack of procedures for teaching students strategies for working various types of comprehension activities. Programs often provide students with one or two sample items and expect them to formulate their own strategies as they work through the remaining items.

Dolores Durkin (1981, p. 518) wrote about the development of reading comprehension in five basal reader series, concluding that the manuals gave more attention to assessment and practice than to direct, explicit instruction. Earlier, she had observed teachers in grade three to six classrooms and found very little comprehension instruction, but she found the teacher spent the time in assessing the child's comprehension and in giving a related written assignment. The situation in the classroom corresponded to the treatment in the basal readers she examined.

Durkin mentioned three studies that had been done to learn what basal manuals do to develop reading comprehension:

> ... they are generous in providing definitions, assessment questions, and practice exercises, but very limited in what they propose for instruction.

Durkin, in her analysis of five basal series, found they were all much alike in certain characteristics. They all offered much questioning

to assess the child's comprehension and little actual instruction. They often concentrated on less significant factors in writing, missing the major themes or ideas. They failed to teach strategies for answering the many questions they asked.

Research surrounding the development of comprehension in basal reader series reflects agreement that there is need for more actual teaching of skills and procedures, and less need for so much assessment and practice.

Summary and Conclusion

There are advantages to both the code-emphasis approach and the meaning-emphasis approach. Research indicates that the code-emphasis approach is useful in beginning reading, but that there is a need thereafter to use the approach which is best-suited to the individual child.

Vocabulary development in basal readers has changed recently from the narrow, small vocabulary of the 1950s and 1960s to the current, richer, more varied vocabulary of the 1970s.

Comprehension development in current basal readers has been criticized by researchers as consisting of mainly assessment and practice, and having little explicit instruction directed toward development of actual comprehension.

Due to their widespread use and acceptance, the basal readers are major teaching tools. They are a sequenced, graded-in-difficulty, group of materials for teaching developmental reading. Research considering their use and effectiveness is extensive and varied in its results.

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THE LEARNING CONTRACT: A MEANS OF IMPROVING STUDENT COMPREHENSION IN THE STUDY OF LITERATURE

By

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Context of the Problem

Certain basic weaknesses seems to be inherent in the traditional approaches to education. Among those shortcomings are the failure to provide for individual differences and the failure to recognize the importance of choice in the classroom.

Concern for these problems is certainly not new. Efforts to adapt education to individual needs began as early as the last decades of the nineteenth century (Harris, 1960). In 1925, the National Society for the Study of Education met to consider the issue of complete individualization of instruction. Sutherland (1936) expressed concern that under the existing instruction system the abilities of brighter students would not be evoked by the easy tasks. At the same time, he feared that the abilities of less capable students would be further blunted by tasks that were too difficult for them. Sutherland also pointed out that vast individual differences make any form of mass instruction inadequate to meet the needs and abilities of the children. Children need differing amounts of time and drill.

Maslow and other humanists have stressed the importance of giving students opportunities to make choices and decisions. Proponents of open education and alternative schools emphasize the ability to make decisions as a vital concern in today's society. They believe the best preparation for decision making is making decisions. Yet the traditional classroom

does not provide for such needs. Studies reveal that teachers spend two-thirds of the time in the classroom talking - mostly lecturing, giving directions, or criticizing. Of the remaining one-third, about thirteen percent is quiet time (Flanders, 1974). Pflum and Waterman (1974). Pflum and Waterman (1974) claim that teachers often make decisions for their students with full realization that the students are quite capable of deciding for themselves. The irony of the situation is that young people exercise considerable self-determination and are involved in life-shaping decisions; inside the school they are expected to obey (Smith, Barr, and Burke, 1976). Pflum and Waterman also describe a rather unfortunate, yet typical, classroom setting in which the teacher decides how long students may have to complete a worksheet. When most of the class finishes before the time is up, they are given the "choice" of waiting quietly until the others are finished. In addition, the teacher makes decisions for students in terms of tasks. For instance, each child must complete the whole page whether he needs it or not. The authors suggest that if teachers begin early in the child's life to provide opportunities for choice, the child will find it easier to develop carefully calculated decisions as a part of his life style.

Even though educators have long recognized the need for individualized instruction, the great majority of our schools continue to use the traditional approach, which results in uniformity. All children are viewed as having similar, if not identical, abilities, interests, and aptitudes (White, 1975).

A possible solution to the problem of providing for both individual differences and freedom of choice is the contract plan. A contract is simply a mutual agreement between student and teacher. It specifies a given amount and kind of work to be completed within a certain time limit. Alternatives are provided in order to meet each student's individual needs and to allow the student some freedom of choice.

Contracts have been used successfully in a variety of situations and grade levels. Barbour and Czarnecki (1973) describe the use of the contract plan with fourth, fifth, and sixth graders at Sunset Elementary School. They found that contracting promotes more sophisticated use of dialogue due to the frequent personal level of communication between student and teacher. In addition, they claim that contracting foster self-direction, improves work and study habits, and builds student independence. They believe that the traditional approach, on the other hand, cultivates dependency in the students because the teacher makes all the decisions.

Contract plans have also been implemented successfully at the university level. Susan Witting (1974) used contracts and computer-assisted instruction in an experimental freshman English course at the University of Texas.

Theodore A. Chandler (1973) employed the contract approach in a graduate educational psychology course at Kent State University. Although he found the contract method no more effective than other methods in attaining certain goals, the options did appear to unleash a few students.

R. M. Barlow (1974), who used the contract approach in teaching an undergraduate philosophy course at the University of Wisconsin, reports that students under the contract plan develop higher levels of academic responsibility and achievement and take more pride in their accomplishments. In addition, they improved their ability to articulate their views, use more imaginative, non-traditional resources, and experience a better rapport with instructor.

These positive appraisals of contracting are based largely on the personal observations and feelings of the teachers. Some of the teachers also took into consideration evaluations of the contract plan written by the students themselves. Conclusions based upon feelings rather than scientific analysis of data do not prove much of anything. Certainly such conclusions would be subject to experimenter bias effect. Therefore, a need exists for a more objective, scientific study of the effectiveness of the contract plan as opposed to the traditional approach. With this need in mind, this research was initiated to compare the effectiveness of the contract plan as opposed to an approach that does not employ the contract plan in accomplishing the objectives of a literature course at the junior high level in Guam.

HYPOTHESIS

Based on the evidence available, the following hypothesis was formulated: The use of learning contracts will significantly improve student comprehension in the study of literature at the junior high level.

The learning contract has already been defined in general terms earlier in this report. For the purpose of this study, the contract

specifically consisted of a form which was completed by the student and signed both by the student and teacher following a student-teacher conference. The student chose a grade (A, B, or C) as his goal, and he agreed to complete certain activities and assignments within a given time frame in order to earn that grade. The student could either choose activities from a list provided by the teacher, or he could suggest his own alternatives, subject to teacher approval. All students had to complete certain assignments, regardless of what grade they contracted for. The higher the grade, the greater were the requirements for fulfilling the contract.

Comprehension in here is defined as student's ability to read prose literature particularly the novel, and answer correctly questions relating to the context of the novel. Such answers required an understanding of both explicit and implicit information in the novel that the students read. The text included multiple choice, matching and completion items.

It was assumed that students who did not sign a contract would be less motivated to learn than those students who did. The assumption of increased motivation on the part of the contracted student was based on several factors. For one thing, these students were thought to have more positive attitudes toward learning since they were allowed some choice in deciding what they wanted to do. It was also assumed that they would make a stronger commitment to a decision which was entirely their own. For another thing, the activities provided for a wide range of abilities and interests.

METHODOLOGY

Design

The non-equivalent, pre-test post-test design was used for this study.

O_1 x O_2

O_1 c O_2

In an effort to establish that students in both groups had basically the same comprehension skills, a pre-test was administered to all the students. At the close of the experiment, which lasted for six weeks, both groups were tested in their comprehension of literature. Differences between the two groups were identified and tested for significance.

Subjects

Two classes were selected from one of the junior high schools of Guam for purposes of carrying out this research. The selection was not done randomly, but rather was based on availability. Both were Language Arts classes. The experimental group was made up of ten boys and sixteen girls. The ages ranged from fourteen to sixteen. Ethnically, the group was made up of fourteen Chamorros, ten Filipinos, one Stateside (Caucasion), and one Hawaiian. The control group included eleven boys and fifteen girls. The ages in the second group also ranged from fourteen to sixteen years, and the numbers in each age group perfectly matched the first group. In both groups, there were six fourteen year olds and four sixteen year olds. Ethnically, the control group consisted of sixteen Chamorros, four Filipinos, five Statesiders (Caucasion), and one Palauan.

Tools

The Gates-MacGinite Reading Test (comprehension portion only, Level D, Form 1) was used for purposes of pre-testing and establishing that the two groups were approximately equivalent in levels of reading comprehension. These tests were administered two weeks before the actual treatment began. Level D is intended for grades four through six. Because of the cultural backgrounds and bilingual nature of many of the subjects, it was assumed that the lower level of the test would be more appropriate. This test basically measures students' ability to read prose passages with understanding. It contains sixteen passages of varying lengths and a total of forty-three multiple choice questions about these passages. The table of norms is designed so that NCE (Normal Curve Equivalent) scores, percentile ranks, stanines, grade equivalents and extended scale scores can be derived directly from the raw scores. Out-of-level norms are provided, and these were used to obtain grade equivalent scores for the purposes of the study.

The Seventh Mental Measurements Yearbook was consulted for information on the test's validity and reliability. According to the yearbook report, the standardization appears to have been rather carefully done.

Kuder-Richardson Formula 20 reliability coefficients, computed for each test, ranged from a .88 to .94 for the comprehension tests. Several steps were taken to assure test validity. Content of comprehension passages was chosen according to a plan that specified the proportion of natural science, social science, humanities, and narrative material. All passages were written in standard English. Both literal and inferential

questions were included to test understanding of the passages. All items were screened by minority consultants, and those items found to be inappropriate were either rewritten or eliminated.

The post-test was a teacher-designed test to determine the students' comprehension of prose literature, especially the novel. It consisted of fifty items, thirty-five of which were multiple choice. The remainder of the test included six matching questions and ine completion questions. Answers required an understanding of both explicit and implicit information from the novel that students read. Scores were based on a one-hundred point scale, with each item worth two points.

In constructing these items, a table of specifications was made in an effort to insure that these items represented the population of the content taught to the students. This was done to make sure that the test had some degree of content validity. Every segment of the content was represented in the test, in proportion to its importance to the whole novel as judged by the teacher.

As a further check on student comprehension during the course of the experiment, a ten-question check-test was given as each chapter of the novel was completed. These tests were given orally. The check-test was also based on a one-hundred point scale, with each item valued at ten points.

Treatment

Basically, the only difference in the treatment of the two groups was the use of the contract with the experimental class. On the first day, a contract booklet was issued to each student in the experimental

group which explained to him what the contract plan involved. The booklet included a calendar of study, as well as lists of alternatives, activities and assignments for grades of A, B, or C. After students had the opportunity to go through the booklet, each student was called by the teacher to discuss plans and sign a contract.

The control group followed the same format as the experimental class, except for the exclusion of the contract. On the first day, students in the control group were given a list of required assignment and activities to be completed during the course of the study. They were not asked to make any decision regarding the grade they hoped to earn and they did not sign a contract.

During the course of the experiment, both classes read the novel, Lillies of the Field. The first chapter was read to the class orally by the teacher. All the remaining chapters were either read silently in class or assigned as out-of-class reading. Each chapter was followed by a comprehension check-test and class discussion. Certain days were allotted for individual or group work on chosen activities and required assignments. This activity was basically directed by students in both groups. Students were allowed more freedom than usual to move about the room and consult each other.

Both classes were taught by the same teacher in the same manner. The teacher made use of several instructional strategies in order to motivate the students to learn. Included were such activities as writing character sketches, writing descriptive and expository paragraphs and defining of words selected from the novel; verbal activities such as telling a

legend to the class, adding an ending to a story based on student's imagination, and reciting part of the story memorized by the student; demonstration activities such as role playing of a character in the story, and staging a scene from the novel were also included. Other project activities included decorating the folder cover in a way appropriate to the story, drawing pictures depicting scenes in the story and preparing a cassette recording based on parts of the story. In this way, students were given a variety of academic experiences in literature.

All assignments and activities were due on the same day for both the experimental and control classes. At the end of each unit, both classes had a review and the comprehension check-test and discussion.

Data Analysis

A comparison of the mean post-test scores revealed that the experimental group did better than the control group. The mean post-test score was 90.15 for the group using the contract plan. For the control group, the mean post-test score was 80.38. The mean check-test score was also better for the experimental groups, although the differences was not as great. For the experimental group, the mean test score was 87.31, as compared to 80.62 for the control group. However, these scores were not used for testing the hypothesis. The results are reported below.

PRE-TEST AND POST-TEST DATA

	PRE-TEST (Grade Equivalent)	CHECK-TEST	POST-TEST
EXPERIMENTAL GROUP	M = 8.9	80.38	M = 90.15 SD = 7.73
CONTROL GROUP	M = 9.1	80.62	M = 80.38 SD = 11.4

To test the homogeneity of variances between the two groups an F-test was carried out. The obtained value of 2.43 does not exceed the table value at .01 level and therefore it is concluded that the variances are not unequal and that the condition of equal variances for carrying out the test of significance has been met.

In view of the size of the sample it was thought best to use the student t-test for testing the significance of the differences between the two means. The results of the t-test procedure clearly indicate the differences to be significant at .01 level. It can therefore be concluded that the contract plan does indeed bring about improvement in comprehension of literature at the junior high level. In view of the genuine efforts made to control extraneous variables to the extent possible and to establish equivalency of groups, it can be safely inferred that the changes were indeed brought about by the contract plan used in the teaching of the experimental group.

Conclusion

The results clearly indicate that the contract plan has significant advantages over the non-contract approach in teaching literature at the junior high level. At a time when teachers are looking for new approaches to enhance student achievement, this study does provide suggestions for improving classroom instructional procedures. These groups do represent other required classes at the junior high school at least in the composition of the student body in the classroom and in other student variables related to learning. As such, it can also be inferred that the contract plan will bring about significant improvement in student achievement in other classes as well.

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DIAGNOSTIC READING PROBLEMS

James L. Craig

Whatever else may be indicated by exhaustive literature surveys of reading research, one clear observation can be made: The vast majority of schools, and the teachers in them, view reading as a set of skills and abilities developed within a person that enables that person to perform the act of reading. There may be disagreement as to which skills and abilities, how, or in what sequence they should be developed or taught, or what role external influences such as culture, language, or socio-economic status may have, but ultimately reading is viewed as a personal skill. Pushed primarily by the overall behaviorist orientation of American education, and Western education in general, this skill has been broken down into sub-sets, pre-skills and so forth.

While the approach to each individual reading program may be different, the underlying philosophies and assumptions of each are remarkably similar. Each defines a series of skill-related learning events for the child to read. Perception, when dealt with at all, is studied or analyzed for its negative implications such as dyslexia. Affect is rarely considered.

Reading research in the 1950's indicated that approximately twenty to thirty percent of the school population suffered reading difficulties of some nature and substantial amounts of local and federal monies were expended to solve the problems (Hallgren, 1950; Gray, 1957; Kawi and Pasamanick, 1959).

During the 1960's reading research indicated that approximately twenty to thirty percent of the school population suffered reading difficulties of some nature and even more funds were made available (Coleman, 1966; Silberberg and Silberberg, 1967, 1968; Silberberg and Feldt, 1968). The Right to Read Program of the 1970's brought still greater funds, including the involvement of the major Foundations, and this pattern continues into the eighties. The unfortunate fact is that if all the money spent on non-readers or problem-readers had simply been given to them, they would now fall within the top twenty percent of the National income brackets, yet they have neither money nor reading skills.

It is no secret that remedial reading programs don't work. Reading research has consistently and rather uniformly indicated that any gains from remedial reading programs are transitory and that long term gains simply don't occur (Bliesmer and Yarborough, 1965; Silberberg and Silberberg, 1969, 1971; Silberberg, Iverson, and Goins, 1973). Individual gains due to remedial intervention range from six to eighteen months in duration and thus provide a school- or system-wide statistical bulge that creates an illusion of progress.

Despite this acknowledge lack of success, the proliferation of reading programs continues. Phonics, linguistics, and eclectic basal programs and their infinite variations and spin-offs abound. This has become a billion dollar business and publishers invest large sums of money into touting their programs. Although some lip service is given to individualized needs, the underlying assumption or premise of these programs is that normal children will progress through the materials at the

suggested pace and in the appropriate sequence to emerge at the end of the semester as 'grade-level' readers. School systems, recognizing that one set of claims is not being fulfilled, work their way through set after set, program after program, and rarely, if ever, question the basic fallacy that any single approach or set of materials is appropriate when more than one learner is involved and is sufficient even for one learner. This insentient reliance on an infinite series of artificial devices and approaches implies that reading is external to the child's inner language processing and this point of view is, of course, the natural outcome of the behaviorist approach.

Reading is a process of and by humans and, while it may be much easier to study phonemes than phobias, it cannot be understood in any useful way if divorced from humans. Words on a page do not, by themselves, have meaning. Meaning is supplied by the human nervous system. To focus on the externals, the 'behaviors', the programs, the approaches and techniques, the 'sequential and heirarchical skills', and to avoid the human aspect of this process, is a sure-fire formula for failure. Given this external orientation, teaching becomes equated with telling. The assumption is made that reading is a global uniform process that the teacher must explain and students must then assume a passive role in what should rightly be an active process. What ought to be of concern is what the student brings to the reading equation: What attitudes help or hinder them; what beliefs or values facilitate or block the creation of reasonable meanings; what information already held adds to or detracts from their ability to apply appropriately the meanings that written

materials suggest. And finally, the emphasis on reading as an externally defined skill means evaluation is equally external and thus the reading class becomes, rather than the joyous introduction to literature and ideas it ought rightly to be, a dangerous place full of embarrassment and failure.

Every child comes to school a user of language. This capacity to use language is something the child has developed on his own without the benefit of teaching or textbook. By the time the child arrives in the first grade he knows approximately 5000 words (and a fairly large number of those have multiple meanings), a substantial number of idioms, and is able to functionally carry out the proper grammar and prosody. All of this, the single most difficult intellectual feat of an individual's life, is an act of individual accomplishment. Why, having accomplished this, is there so much difficulty in developing what is clearly a much simplier task, the act of reading?

Paul Goodman outlines the conditions by which we learn to speak:

1. The child is constantly exposed to speech related to interesting behavior in which he often shares ("Now where's your coat? Now we're going to the supermarket, etc.)

2. The speakers are persons important to the child, who often single him out to speak to him or about him.

3. The child plays with the sounds, freely imitates what he hears, and tries to approximate it without interference or correction. He is rewarded by attention and other useful results when he succeeds.

4. Later, the child consolidates by his own act what he has learned. From age three to five he acquires styles, accent, and fluency by speaking with his peers, adopting their uniform, butalso asserting his own tone, rhythm, and mannerisms (Goodman, 1970).

Contrast this process with how we purport to teach reading in the schools. The external orientations mandated by the behaviorist approach creates an artificial distinction between teaching and learning in which teaching all too often takes place in the absence of learning. The vital idiosyncratic process of learning a language becomes a stereotypic form of mass skill acquisition. Teachers have an important role in helping children learn to read, but it is rarely by dictating what and when a child should learn. The function of teachers is not so much to 'teach' reading as to help children to read.

Frank Smith emphasizes that the type of learning necessary for reading cannot be taught (Smith, 1978). Teachers are seen as having an important role in helping children learn to read, but it is rarely by dictating what and when a child should learn. He feels that reading cannot be formally taught, that children learn to read only by reading, assuming there are adequate opportunities to explore and test their hypotheses in a world of meaningful print. In defining the role of the teacher in this view of reading, Smith says:

> "My final aim will be to argue that teachers have a critical function in helping children learn to read and that they must be trusted more because formal instructional systems-prepackaged materials and programs must be trusted less... The view of reading that I have presented sees the teacher not as a classroom manager or rigmaster nor as a dispenser of instructional routines, but as a facilitator and guide (Smith, 1978).

In Smith's view of reading, learning print is considered a visual information device composed of letters, words and sentences with meaning as a composite result of the total interaction of all three. The reader

obtains meaning from the text from the writer's point of view only by asking those questions that are anticipated by the author and by bringing to the process an expected or anticipated background of prior knowledge. In defining the role of the reader Smith says:

> It should therefore be evident that both comprehension and learning depend on prior knowledge, or what the reader knows already. I have called this relevant prior knowledge nonvisual information. Throughout this book I have tried to emphasize that reading is possible only when the reader can bring sufficient nonvisual information to bear to reduce the amount of visual information that must be attended to in text, or at least to utilize the visual information as economically and efficiently as possible. The nonvisual information lessens the reader's uncertainty in advance and reduces the amount of visual information required to eliminate the remaining uncertainty. Here is a summary of reasons why the balance of nonvisual and visual information is critical:
>
> 1. The visual system can be overloaded if too much visual information is required to eliminate the reader's uncertainty, and tunnel vision will result. Nonvisual information reduces alternatives.
>
> 2. Short-term memory will also be overloaded by the need to pay attention to small fragments of the text, and the possibility of comprehension will be greatly diminished. Nonvisual information ensures that short-term memory is concerned with sense.
>
> 3. Long-term memory functions efficiently only when reading is meaningful, when new information can be integrated directly into what the reader knows already. Nonvisual information is the basis of effective learning and recall.
>
> 4. Reading must be fast and not overcautious. Slow reading (less than 200 words a minute unless the text is already understood) interferes with comprehension and learning because it overloads the visual system and memory. Nonvisual information permits fast reading...

5. Language is intrinsically ambiguous. This is basically the distinction between the surface structure and deep structure of both spoken and written language. Nonvisual information, through the elimination of unlikely alternatives in advance, ensures that meaning is brought to text at the deep structure level and that the reader does not become enmeshed in the pointless detail of surface structure (Smith, 1978).

To crystalize all the preceding points, fluent reading details maximizing what the brain can do best, namely the utilization of what it knows already, and minimizing what the brain is least efficient at, namely the processing of a lot of new information, especially when the new information makes little sense.

Clearly, all that children require to develop and master spoken language, both in terms of transmission and reception with comprehension, is the experience of using the language itself. By the same token children learn to read by being involved in reading, in a context in which it is meaningful and in which they can generate and test hypotheses. Formal programs tend not to allow this and, in fact, often systematically deprive the child/reader of the prerequisite and requisite information. From this point of view it can be seen that the history of failure of formal reading programs is both predictable and indeed assumptive. As a form of planned obsolescence, it may be good business, but is poor education.

Most of you listening today have dedicated all or part of your professional lives to the teaching of reading. It is not my purpose to debunk the importance of your mission, but rather to call into question some of the techniques and processes you use or plan to use. Some of

you are undoubtedly upset with the generalities that I have expressed and the feeling that I have sent much more time explaining what you shouldn't do than what you should. In answer, I would like to offer a final quote from Frank Smith:

> One of the beautiful things about written language that makes sense (to the child) is that to a growing extent it will itself provide learning assistance to the child. Helpful adults are not always necessary. Meaningful written language, like meaningful speech, not only provides its own clues to meaning, so that children can generate appropriate learning hypotheses, but it also provides the opportunity for tests. If a child is not sure about the likely meaning of what is currently being attended to, the context (before and after) can provide clues. And the subsequent context will provide the feedback about whether the child's hypotheses were right or wrong. Reading text that makes sense is like riding a bicycle; children do not need to be told when they are falling off.
>
> It should not be a cause for dismay that we cannot say with exactitude what a child has to learn in order to read, or that a foolproof method of instruction cannot be found to direct a child's progress in learning to read. It was not possible to specify the content or course of a child's learning spoken language either (or the difference between cats and dogs for that matter). But it is possible to specify the <u>conditions</u> under which a child will learn to read, and these are again the general conditions that are required for learning anything--the opportunity to generate and test hypotheses in a meaningful context. And to reiterate the constant theme, the only way a child can do all this for reading is to read. If the question arises how children can be expected to read by reading before they have learned to read, the answer is very simple. At the beginning--and at any other time when it is necessary--the reading has to be done for the children. Before children acquire any competence in reading, everything will have to be read to them, but as their ability expands they just need help. And always the child will be the best guide to learning in the most efficient manner, because children will not willingly limit their vision, overload memory, or tolerate nonsense. Children also will not tolerate <u>not learning</u>, so just as there is no reason

> to expect that they will be satisfied with what has become simple for them, so also they should not be expected to remain in situations where no learning or comprehension is possible at all.
>
> Children need adults as models; they will endeavor to learn and understand anything that adults do--provided they see adults enjoy doing it. If meaningful written language exists in the child's world, and is visibly used with satisfaction, then the child will strive to master its mastery; that is in the nature of childhood. There is no need for special explanations about why children should want to learn to read, only for why they might come to the conclusion that it is pointless or too costly.

I hope that this paper has raised some questions in your minds concerning the "teaching" of reading for I firmly believe the raising of questions to be the ultimate function of all education. Reading is taught in the schools today just at it was taught all those many years ago when I was in primary school. It is as if we had learned nothing in the last forty years about how children learn to read. The illustrations are newer, the books more attractive, but the technique and process is almost unchanged.

Indeed, there is a strong resistance to change. When Renee Fuller was developing the Ball-Stick-Bird-Reading Program, her graduate students introduced the program to a profoundly mentally retarded group. This group of 26 ranged in I.Q. from 33 to 72 (with nine below 40) and in age from 11 to 49. When her graduate students reported that the mentally retarded group was beginning to read with comprehension, these reports were discounted and ignored by Dr. Fuller for a full year. She was, by her own admission, simply blind to any unexpected results. Further, when she finally did accept these dramatic results she was unable to get them

published in any of the professional reading journals, and teachers first read about this program in the pages of Psychology Today (Fuller, 1974).

Such unquestioning acceptance of tradition is difficult to understand in the context of repeated lack of success. I urge you to adopt a more critical and analytical stance. Think of yourselves, not as reading teachers, but as teachers of children for it is in the minds of children that you will find your successes, not in the pages of a book.

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LANGUAGE EXPERIENCE APPROACH

Pamela Sood

Abstract

The language experience approach for teaching reading is a method in which instruction is built upon the use of reading materials which represent both the experiences and the language patterns of the learner. The communication processes of listening, speaking, reading, and writing are integrated into language arts and reading instruction.

The purpose of this review is to examine the available research literature from 1969 to 1980. Reports cited show that the language experience approach is more widely used at the beginning reading stage than at any other level of reading development. Yet, while language experience programs are generally acknowledged as an excellent means of introducing children to reading, research is relatively limited.

Every child brings to school a language, he can listen and he can talk. The LEA to reading begins with this language and utilizes it as the material for reading. As children become aware of words, the letters that compose them in written form, and symbol-sound correspondences, they are ready to try the reading of beginning books which may or may not be reading text books. A language approach to reading takes children logically from the known, spoken language, to the unknown, reading and writing. Reading and writing are taught together as two faces of the same coin. While LEA is the most common name for instruction of this description, other terms such as the language arts approach (LAA) or an "integrated language arts program" are often used.

Lee and Allen (1963) point out that LEA is based upon the following principles:

1. What a child thinks about he can talk about.
2. What he can talk about can be expressed in painting, writing or some other form.
3. Anything he writes can be read.
4. He can read what he writes and what other people write.

In the earliest review located, Wrightstone (1951) concluded that language experience material can be used with effective results. Wrightstone had concluded in an earlier article (1944) that, by the end of the third grade, typical children taught systematically by activity related (usually experienced-oriented) methods were reading as well as were children taught exclusively with basals, when reading achievement was measured by standardized tests.

The second review of research and literature, by Hildreth (1965) provides an excellent historical perspective of the evolution of the

language experience approach, from its classroom origins around 1900 through the studies investigating the approach from 1926 to 1965. The term experience method did not appear until 1934, and language experience was introduced still later. The name "language experience approach" did not signify the same instructional program from classroom to classroom or from study to study, and this variation in program still exists today.

Of the 13 studies Hildreth cited, three had children of low socio-economic level as the subjects. It is interesting to note that Hildreth does discuss the rational for using the language experience approach with children of backgrounds different from the content common in commercial materials for reading instruction. She repeats the information reported in the Wrightstone review and adds studies made after 1951. She concludes that, by the end of third grade, typical children taught systematically by experience methods combined with individualized reading were reading as well as, or better than, children taught with basals. Two of the 13 studies reported results which were unfavorable to the language experience approach it was limited in scope. The third review of language experience reading instruction appeared in the 1967 conference proceedings of the International Reading Association (Vilscek 1968). This analytical report concentrated on the language experience projects in the National First Grade Studies.

In England, Gardner (1942) compared an experience-activity, or informal, approach with a formal approach, for a three-year period, for children of ages five to eight. She reported no significant differences

in achievement in reading, spelling, or punctuation, at the end of the three year period. Factors less directly related to the academic instruction, such as attitudes, imaginative painting, concentration, and social behavior favored the experimental children. Gardner reported also that there was a slight tendency in the lower socioeconomic levels for the experimental pupils to do more poorly than the controls, but detailed analysis by socioeconomic level was not a major of concern of the study.

In one large-scale investigation, three approaches to the teaching of reading, individualized reading, basal readers, and the language experience approach were studies during the 1959-1960 school year under the Reading Study Project conducted by 12 elementary school districts in San Diego County, California. Sixty-seven teachers participated. This project was the first large-scale one to employ the language experience approach, and the general conclusion was that the language experience approach, during the first three years of elementary school, can be an effective way of teaching reading. The language experience teachers found that children make as much, or more, progress in the reading skills, measured by standardized reading tests, as did children who were taught the skills directly (Allen 1961).

Hall (1965) developed and evaluated a language experience approach for culturally disadvantaged Negro children in the Washington, D. C. schools for the first semester of the first grade. There were 151 pupils in the five experimental classes and 125 pupils in the five control classes. Significant differences between the groups, favoring the

experimental group, were reported in gains made on measures of reading readiness, in word recognition on a standardized reading test, and in sentence reading on a standardized reading test. No significant difference was found in word recognition scores on a test of preprimer and primer vocabulary, developed by the investigator. Of the two approaches, teachers rated the language experience approach significantly more effective than the basal approach, though they indicated no differences in the practicality of the two approaches. -

Brazziel and Terrell (1962) conducted a study in which a six-week readiness program for one class of 26 culturally disadvantaged children emphasized the use of experience charts. These researchers found that experience materials provided meaningful reading content for disadvantaged children when used in connection with other readiness activities and materials..

Horn (1966) focused on reading, for a group of culturally disadvantaged, Spanish-speaking first-grade children. Three methods were used:

(1) audio lingual techniques in English, using science-based materials;

(2) audio lingual techniques in Spanish, using science-based materials;

and

(3) readiness techniques recommended by the San Antonio school district.

The stress in the 28 first-grade classes was on developing language and experience background. There were no significant differences in the main reading scores of the different treatment groups. Horn claims there is a great need for new, more suitable measures of readiness, intelligence, and language competence for Spanish-speaking children.

In summarizing the language experience and basal comparisons in the Cooperative Research Projects, Bond and Dykstra (1967) explained that relatively few significant differences were found between the approaches. The significant differences that did exist generally favored the language experience approach. However, the authors caution that these "sporadic differences were not of much practical significance in terms of actual reading achievement" (Ip. 120). Their analysis of the studies led Bond and Dykstra to these conclusions: (1) The success of the language experience approach indicates that the addition of this approach to a reading program can be expected to make a positive contribution to that program. (2) A writing component is likely to be an effective addition to a primary reading program.

Affective factors have been the major focus in some studies. The purpose of Knight's (1971) study was to determine differences in attitude toward reading after one school-year of instruction in four different beginning reading programs. Language experience, a bilingual program, the Miami Linguistic Readers, and basal readers were the methods used. Two second-grade classes and two first-grade classes from each of four schools were used in the study. The main attitude favored the bilingual and Miami Linguistic Readers Approaches.

A culturally disadvantaged population was used in Lamb's (1971) investigation of the effectiveness of the language experience approach for beginning reading with children in five first-grade classes in Indianapolis. The achievement and attitudes of the experimental group were compared to the achievement and attitudes of five control classes which used a modified basal reader approach. No significant differences in achievement and attitudes were found using the California Reading Test and The Primary Pupil Attitude Inventory.

The purpose of Christensen's (1972) study of kindergarten children in Delaware was to study the effects, on freely produced oral syntax after five months, of two instructional programs, one with a language experience component and the other without. She concluded that teaching approach, social class status, and sex did not exert a significant effect on the oral language facility of kindergarten children, as measured by changes in T-unit length, although there was a significant difference, favoring the language experience group, in the number of T-units produced. T-units were defined as teaching units. She did conclude that, for middle-class boys and girls, changes in syntactic development are likely to be greater in a language experience program, whereas the changes in syntactic development of lower-class children are likely to be similar in regard to program.

O'Donnel and Raymond (1972) reported no observable change in children's adjustment by program. They reported that at all intelligence levels, there were significant gains favoring the experimental group, and that the most pronounced difference in favor of the Language-centered program was for the low-ability group.

The standard versus non standard language issue was reflected in Cachie's (1973) study. She hypothesized that kindergarten non standard dialect speakers instructed by means of a language experience approach requiring a verbatin recording of their ideas would perform significantly better in reading comprehension, visual discrimination, and work knowledge than would those instructed by means of a language experience approach in which the dictation was recorded in standard English. The subject training was only non standard-dialect speakers without any previous reading; each treatment group consisted of 30 students. After two months of instruction, no significant differences between groups were found when students were tested for reading comprehension on the Gray Oral Reading Test and for visual discrimination and word knowledge on the researcher's tests. The limited time period may have been one reason for the no-difference finding.

Reichbach (1973) compared two types of readiness programs, an informal language experience program and DISTAR, with kindergarten children. Three classes of lower socioeconomic level students were in each treatment group; subjects totaled 122. The post-testing showed that the DISTAR children scored significantly higher in two of the four subtests, and their total scores on the Wide Range Achievement Test also were significantly higher.

Weber (1975) studied readiness by comparing language experience and phonics readiness programs of six-weeks duration for post-kindergarten children. Parents administered the programs with guidance from education. At the conclusion of the program, significant differences in favor of

the language experience group were found on readiness tests given at the beginning of the first grade. Reading achievement was tested at the end of the first grade, but a number of first-grade variables, in addition to the pre first-grade readiness program, may have affected reading achievement.

Elaine Anderson (1975) did an intriguing experiment, not with words, but with common household items: cups and glasses. She took 25 cups and glasses, all different. She asked children aged 3, 6, 9, and 12 to do four tasks: 1) to name the items; 2) to sort them into cups versus glasses (and to put the ones they thought were neither into a "left-over" pile); 3) to define cup and glass, and 4) to choose the best exemplar for each category (a typicality rating).

Anderson found, as have Read (1975), Henderson (1977), and others that children agree to quite an extent. They make enough sense out of any categories in their world to communicate. However, their categories in their world to communicate are not completely the same. Moreover, the older the child, the more items he or she tended to put in the "left-over" pile. Their definition indicated that a drinking vessel was "kinda like" a cup, but is usually called a glass. Another drinking vessel might be rejected completely. Children rejected instances from a category according to how they defined the category individually. Anderson's work is an illustration that all people do not share the same members within any category, even if they use the same title for the category or concept.

Gardiner's study involved 40 children, half experiment group exposed to the language based approach, and half control group taught to read by a conventional method, at the end of first grade reading test was administered and evaluated. The results revealed that the experimental group achieved a higher level on word recognition than control group, however, no difference on attitudes to a concept of reading. Both produced miscues that indicated that sound graphic relationship was high, while the experimental group produces a higher percentage miscues with identical grammar function and strength of grammatical relationship "no loss" in comprehension and retelling than the controlled group. The experimental group showed a significantly (0.1 level) more effective use of reading strategies than did the control group.

She allowed them initially to learn to read their own oral language pattern. Latin books were selected by children and they contained more natural language pattern, that is, the material looked and sounded like language. The second group read by conventional reading approach and became the control group. Post test only "control group" design was adapted as the research procedure.

CONCLUSION

The approach is often a very effective teaching tool for reading disabled children since it attempts to relate reading and other communication skills (listening, speaking, and writing) in an instructional program. The fact that each child is encouraged to proceed at his pace is another major advantage of this approach. The teacher's organization and knowledge of the reading process is also crucial to the

success of LEA. Otherwise sequential reading skills may not be learned. LEA is not based upon a series of books. The oral and written expressions of children serve as the primary reading material in this approach, since reading is considered to be a by-product of thinking and oral expression.

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How the Basal Reader has Changed

Elizabeth Manibusan

Abstract

Because the basal reader is one of the teaching materials used extensively in the U. S. and in Guam schools, the author studied and summarized numerous research data to determine how the basal reader content has changed. The following paper discusses several dimensions of the basal reader: the language in the basal reader, basal reader content, and specific skills in the basal reader. The author hopes the data gleaned will be helpful to teachers in their use of the basal reader as a tool for teaching reading.

How the Basal Reader has Changed

One of the major objectives of many schools is to help each student become an independent reader. Therefore, the teacher, the materials used, and the classroom organization used must help students learn and gain proficiency in applying basic skills to the reading of all types of materials.

This paper summarizes research findings, experiments, studies and analyses on the materials that schools use in teaching reading. Because the basal reader is the material most extensively used in the U.S. and in Guam schools, the author asks: How has the basal reader changed?

The basal reader approach includes the child's basal textbook, the teacher's guide, the workbook and any supplementary charts, exercise sheets, tests, and cards that accompany the basal textbook.

A basal reader set of materials is a product of careful research and study, containing several features not commonly found in other sources. Specifically, basal readers bring the following:

1. an identification of important skills to be taught,
2. a wealth of exercises from which a teacher can choose,
3. a breadth of scope in reading content,
4. carefully developed bibliography of related selections, and
5. a wide variety of suggested activities. (Sucher 1968)

The McGuffey Readers, first published in 1836 are the most famous and influential textbooks ever used in America. In the early 1900s, over 120 million copies had been sold--outranked only by the Bible and Webster's Dictionary. For almost a century, they were the main reading materials for over 80 percent of America's school children.

In the 1930s-1960s, the McGuffey Readers became regarded as "out-of-date" and newer readers began to replace them. This era showed

mostly suburban settings. The families have a standard "ideal" composition. There is a young mother and father, a brother and sister (Dick and Jane) with a baby sister (Sally), a lovable pet dot (Spot) and kitten (Puff). The family is always white, middle-class and comfortable.

In the 1960s to the 1970s, a new style in basal reading series emerged. From the story settings, characters and themes to the literary forms and subject matter area, each dimension of the reading series undergoes a dramatic transformation. The settings not only encompass the city, country and suburbs, but include all regions of the U.S. and each continent of the world. The time of the stories is not only contemporary, but frequently is set in the historical past and in the hypothetical future. The content ranges from ancient man to the science fiction of outer space. The characters are now both factual and fictional and may represent many ages and socioeconomic levels, any color, culture, time and place. The sexual balance is still not as even as that in the McGuffey Reader, but it begins to better approximate the male-female population in everyday life. The model family that served as a constant focal point for the readers of the thirties through the mid-sixties is gone. Selections are tied together by their common human themes rather than their common characters. (Steuer and Steddom 1979).

It is not the intent of this paper to study all the dimensions of the basal reader, rather, it is to glean from previous research those data that might prove helpful to the author in her use of the basal reader as a tool for teaching reading.

The Language of the Basal Reader

Basal readers are supposed to be easy for children to read. Why then is there persistent criticism of the unnatural prose in beginning basals? The following passage by Gourley (1968) demonstrates this:

> Sue saw Tom.
> Tom was crying.
> "What is the matter, Tom?" Sue asked.
> "What happened to your toy?"
> "A car ran over my toy."
> "The car broke my toy," Tom said.
> "Do not cry, Tom. I have many toys.
> I will give you one of my toys," Sue said.
> Tom stopped crying.
> Tom took the doll.

Gou ley wrote that understanding such a passage requires more than understanding each sentence; it requires integrating the content into a coherent whole. For example, to understand the passage above, the reader must recognize that the person who was crying, whom Sue addressed, who responded, whose toy was broken, who stopped crying, who took the doll, are one and the same--Tom. However, that person is referred to in exactly the same way in every instance, by the name Tom. This repetition, she noted, is unnecessary and inefficient, since the English language has within its system the means for signalling repeated reference to a known person through the use of pronouns. Thus after the first mention of Tom, a writer or speaker would normally refer to Tom as he. Gourley also cites previous research on adults in which they were able to recall more accurately when pronouns were used (67% correct). Although children's psycholinguistic processes may differ from adults, other results indicate that children scored 88% accuracy in the identification of antecedents of personal pronouns.

Recent readers are attempting to match the language of basal readers with the language of the child. Nevertheless, many current basals continue to limit the use of pronouns and to repeat nouns in an unnatural way. Perhaps children also find such repetitions unnatural and unnecessary.

To what extent does the language of the basal reader the child is reading match his own language function? Martinez (1977) asked, "Do basal readers deny the young reader the opportunity to use his knowledge of language as he tries to gain control over the reading process?" To determine this, Martinez analyzed the language functions in two basal readers, Signposts, the first reader of the 1971 Houghton Mifflin series, and Together We Go, the first reader of the 1970 Harcourt Brace series. She selected these two readers because they were widely used and because the expanded vocabulary of first readers was more likely to offer the potential for matching the functional competence of the beginning reader than of preprimers or primers. In order to categorize the basal sentences, she selected Joan Tough's language function classification system (Tough, 1977). Tough identifies four functions: 1) the directive function which is concerned with the direction of actions of self or of others. An example: "I am going to cut the clay to make two bits..." "Put your brick right on top. Be careful." 2) the interpretive function which is concerned with the use of the imagination to explore situations in which one does not and may never take part, for example, "My dad's going to make me a seesaw...when it's summer he's going to." and 4) the relational

function which is concerned with establishing and maintaining relationships with others; an example: "I want a biscuit. You want a piece of candy?"

Using this system, Martinez classified each sentence in the two basals according to its function and use. The results of the study revealed that both basals used the entire range of functions that the six year old child has in his experience. This might indicate that the young reader can use his knowledge of language function when he reads. Yet, while the two basals do indeed use all the functions in a six year old's repertoire, the interpretive function in general is used to a far greater extent than these occur in the language of the child, 62.8% in Signposts and 69.4% in Together We Go. These data suggest that the basals may over-rely on the interpretive function at the expense of the relational, projective and directive functions. Martinez concluded that the basal readers depended too much on single language functions rather than on multiple functions which young readers have in their experience.

Basal Reader Content

Since the 1960s there have been numerous studies criticizing the sexist and racist stereotypes and the portrayal of family structures in elementary school basal readers. Minority characters were rarely included. Sexism was pervasive. Fathers had careers; mothers cooked, cleaned and kept the house. Little boys were leaders, imaginative and active. Little girls were passive and dependent. Children rarely got into trouble and never had to face any major problem.

To find out if these criticisms have helped to change basal reader content, Kyle (1978) analyzed preprimer and sixth grade basals of newer editions. In preprimer readers, she found that children's groups are racially diverse and include both girls and boys. Of the 151 stories she studied, 118 tell of the activities of a group of children. Male and female adults are pictured in various occupations. However, although publishers have made attempts to respond to the criticisms, the new preprimers are not completely unbiased. Of the 118 stories, 23 portray all-male groups; only three portray all-female groups. Of single-character stories, 19 are boy-centered, only 14 are girl-centered. Pictures abound but 803 are of boys and only 558 are of girls. Children still rarely have difficult problems. Children of various races are well represented, but when they play, they join a racially mixed group. Of the 151 stories, 76 relate the stories of an integrated group of children. Minority adults are included but far less frequently in the stories than nonminority adults. Sixty-three of the 76 stories of children have all non-minority characters and only 12 have all minority characters. Kyle wondered if minority children are so lacking in imagination that they merely wait on the sidelines until asked to join their non-minority playmates. When parents are shown, Mom is generally shown shopping for groceries, mopping the floor, taking care of the children, or scolding. Dad's role has not improved much either. He still plays with the children and takes them on trips. Elderly characters are also absent for the most part and rarely is a grandparent shown. Family structures are still traditional. Young children seeking

answers to the problem of separation, divorce, foster homes, or adoption--issues they might face in the real world--will not find any answers in these stories of happy and contented characters.

In the sixth grade basals, Kyle found that of the 308 stories, only 27 were boy-centered. Girls were leaders in school projects, were interested in sports, and were respected for their talents. Included in some basals are stories of past leaders in the struggle for women's equality. These offer some encouragement; however, in most sixth-grade basals, female characters are greatly under-represented. Kyle cites a recent study which found a lower percentage of female characters as the grade level of the textbooks increased.

> This decline in female role models makes it harder for a girl student to identify with the textbook characters and thus may make it harder for her to assimilate the lesson. Covertly, she is being told that she, a female, is less important as the textbook world shifts to the world of adults--to the world of men. (Kyle, p. 308)

In stories of integrated groups of children, only 15 relate the activities of a racially mixed group. There are 96 stories with non-minority characters and 44 having all minority characters. As shown by Kyle's analysis, basal readers contain an inadequate number of stories represnting the diversity of family structures in today's society.

Overall, Kyle concludes that publishers have attempted to deal with the criticisms and concerns of previous evaluators and that some publishers have made greater efforts than their competitors. However, she suggests that more stories are necessary in portraying adults as more and more parents combine a parental role with a professional one. Greater diversity of family structures must be included if children are

to relate to their stories. The activities of minority and non-minority male and female characters should show that aspirations, talents, feelings and interests are not related to gender or race.

Basal readers are a very rich source of information. A study of the Houghton Mifflin Reading series for the primary grades by Beck (1977) revealed that this basal series contains numerous and varied genre selections. She found that fiction accounted for a majority of the selections (87), non-fiction (55), poetry (72), reading skills development (34), making the genre selections well-balanced. Beck also found that the major differences between fictional narratives and non-fictional ones lie in the kind of previous knowledge required to read them and in the structure of the passages. For example, the sentences and concepts in the fictional passages are within a second grader's experiences; in the non-fictional selections, the concepts mentioned are not. While reading the sentences in the non-fictional passage is easy, the unfamiliar concepts cause difficulty in comprehension for the child. Unless the reader has previous knowledge of these concepts, the passage will be difficult to understand.

Bean (1977) also analyzed the Houghton Mifflin Reading series for the intermediate grades and found a high number of different genre selections. She found 72 fiction selections and 87 non-fictions in all the three levels. Non-fiction selections include biography, exposition, autobiography and argument. In each of the three levels, 10 skill development selections are included. There are also 41 poetry entries and 16 classified as "Riddles and Puzzles." There were 63 skills listed

as comprehension skills, 64 reference and study skills and 42 literary skills. She notes that these three categories may be very critical in reading content textbooks in the intermediate grades.

One content of basal readers that is not to be ignored is the large number of pictures they contain. But how effective are the pictures in the readers? Do they in fact improve word recognition and comprehension, two possible functions that have been studied by researchers? Some say that pictures are an aid to word recognition, while others do not. No one, however, has ever recommended that pictures be excluded altogether. All have agreed that they are a source of motivation and interest in reading and in stimulating children's use of language. Legenza and Knafle (1978) conducted a study to determine the effectiveness of pictures in basal readers. They analyzed eight series of first and second grade basal readers. They were Ginn 1976, Harcourt Brace Jovanovich 1974, Holt, Rinehart & Winston 1973, Houghton Mifflin 1976, Lippincott 1975, Lyons and Carnahan 1974, Scott Foresman 1976, and Open Highways 1974. They used the "Picture Potency Formula" developed by Manzo and Legenza in 1975 for assessing the value of the pictures. This formula classifies pictures into three categories: 1) those that will stimulate a relatively large amount of language (high potency pictures), 2) those that will stimulate a relatively moderate amount of language (medium potency pictures), and 3) those that will stimulate a relatively small amount of language (low potency pictures). Ten factors are included in the formula. These are different things, significant things, total things, colors, actions,

children, people, things with potential for movement, size of plate and empathy. Each factor is tallied and converted to a scaled score. Scaled scores for the 10 factors are then tallied. A picture is considered high potency if the score totals 38 or more; of medium potency if it scored 28-37; and low potency if the score is 27 or below. The results show that the majority of pictures (60-100%) from all first grade series were of low potency, and only one series had any high potency pictures (Ginn 7%). Between 70-100% of the pictures in the second grade series were of low potency; no high potency pictures were found.

The Legenza and Knafle study shows that first and second grade basals do not have pictures of maximum effectiveness. In terms of stimulating language development, it is clear that the majority of the pictures were of low potency.

If pictures in basals help to stimulate language, a small number of high potency pictures would be more effective to the reader than the present large number of ineffective low potency pictures.

Specific Skills in the Basal Reader

> They can attack words, but they don't understand.
> They can read their basals, but they can't read their textbooks.
> We need to spend more time on teaching comprehension (Bean 1977).

These criticisms on children's lack of comprehension prompted Bean (1977) to conduct a study on the development of comprehension skills in basal readers. She analyzed the intermediate Houghton Mifflin Reading series to find out the instructional sequencing of one specific comprehension skill, drawing conclusions. At all three levels, she found that the series provided the same sequence of instruction for the skill. This

sequence includes pre-assessment, instructional experiences, practice in a workbook, post-assessment, reteaching, reassessment, maintenance or further practice and application. Although there were eight instructional selections, Bean found very little instruction in them. In addition, there was little difference between the initial instructional experience and the reteaching exercises. She feels this "sameness" in the instructional and practice exercises does not help students think so that they can apply what they learned during the instruction. Furthermore, if a child still had difficulty with drawing conclusions after the first instructional experience, he or she was given more of the same ineffective practice. Also, Bean found that task performances acquired in the assessment selections differed from those in the instructional and practice selections. In other words, the student was asked to perform a task in the testing exercises that was different from that in the instructional selections. For example, in seven out of eight instructional selections, the student was asked to give, either in writing or orally, a short answer. Then in all nine of the assessment measures, the task performance is to select the best answer (a forced-choice response). In each of the levels, she found 72 problem or stimulus paragraphs. All but four of the paragraphs consisted of common experiences such as games, modes of travel and various play activities. There is no variety in the content to enable children to practice drawing conclusions. Furthermore, the content does not become increasingly more challenging to the student as he proceeds through the reader.

Beck's (1977) analysis of the primary Houghton Mifflin Reading series revealed how this basal teaches comprehension skills. Beck

divided the comprehension questions in the series into five categories: 1) questions that facilitated vocabulary and language development, 2) questions that required students to locate information, 3) questions that predict outcomes, 4) questions whose answers could be located in a single sentence in the text, and 5) questions whose answers could be located from more than one sentence. She found that in the first grade series there were twice as many single sentence questions than there were multiple sentence questions. By the end of first grade and through the end of second grade, multiple sentence questions were increasing. She wrote that multiple sentence questions are important because they put the reader in a situation where he or she has to locate information from various places in the selection. This may help the reader to develop integration strategies. Beck also found that the amount of recapitulation for the content stories decreased over the grades. In the early part of first grade, 88% of the stories were orally recapitulated through post-reading questions; near the end of first grade, only 58% were recapitulated; by the end of second grade, the percentage dropped to 38% and at the end of third grade, the percentage recapitulated was only 15% of the text.

Quellmalz et al. (1977) performed an instructional analysis for the following major reading programs (older and newer editions) widely in use in a California school district: Bank Street (1962, 1973), Macmillan (1965, 1975), Harper & Row (1966, 1972), and Ginn 369/720 (1968, 1976). They looked for the degree to which reading programs treated various reading skills: phonic analysis, word structure,

sentence structure, word meaning, literal comprehension, inferential comprehension and study skills.

Quellmalz et al. found that, for the total K-6 programs, in both earlier and newer editions, word meaning and literal comprehension skills consistently receive the most emphasis, while study skills, inferential comprehension of non-fiction elements and sentence structure (except Harper & Row) generally receive very low priority. Their findings also indicate that there is a great emphasis in both editions on phonic analysis during the primary grades with a slight decrease in the newer editions. In the older editions, the primary basals also emphasized literal comprehension, word meaning and word structure. In the older editions for the intermediate grades, there is a continuing emphasis on word meaning and increased emphasis on inferential comprehension of fictional elements and study skills. The grade 5 series (newer edition) also emphasized word meaning, non-fiction and study skills. However in literal comprehension and word structure, the emphasis increased from the earlier editions.

The data show that the major content of the basal reading programs fails to provide consistently for instructional effectiveness and neglects some important areas of reading skills.

Quellmalz et al. also report that these basals are particularly weak in teacher instruction. Explicit instructional cues for each skill is not provided.

Conclusion

It seems likely that most school systems will continue to center their reading instruction around basal readers. Basal reading series

can provide for the sequential development of all the reading skills. However, these materials should not be considered as the sole reading program. Many other materials should be used to supplement them. Studies (Streit, 1973; McGuire, 1968; Asplund, 1976; Sucher, 1968) have shown that students in schools that incorporated various components of other approaches into the basal reader program scored much higher in achievement than students in schools having only the basal reader.

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PROGRAMMED INSTRUCTION

Turrell Henkelman

ABSTRACT

Programmed instruction is a learner-centered self-taught means of instruction. It differs from other forms of individualized instruction. The three principles that separate programmed instruction from other forms of instruction are the ideas that the materials should be presented in small steps, there should be constant responding by the student, and immediate feedback.

Programmed instruction has not been successful in teaching more advanced reading skills. Programmed instruction has been found to be as successful as other means of instruction in the teaching of basic structural analysis skills. Programmed instruction has been found to be most successful with slow and average learners.

The use of programmed instruction is declining. Many of the principles of programmed instruction have been adopted by psycholinguistically based programs. Current individualized skill development kits also owe much to programmed instruction.

Programmed instruction has not been able to replace the teacher in the teaching of reading skills. Programs that use direct instruction by the teacher following the principles developed in programmed instruction offers the chance of realizing much of the promise of programmed instruction.

What is programmed instruction? The safest definition that can be made of programmed instruction is that programmed instruction is a system of materials designed to allow students to teach themselves (Woolfolk, Nicolich, 1980, Karlin, 1980, Miller, 1973). Programmed instruction is not to be confused with individualized instruction. The difference between the two systems being that programmed materials are designed so that they are presented in small frames, and are designed so that student errors are kept to a minimum. Individualized instruction includes a wide range of instructional materials, not all of which are presented in small, error-free segments. Programmed instruction is also sometimes confused with mastery learning, where students must achieve at a certain level before they are allowed to progress. For instance, students must achieve at the 80% level before they are allowed to proceed to the next lesson. Learning to mastery can, however, be a part of programmed instruction. Conversely, programmed instruction can be an instructional method of mastery learning. Programmed instruction should not be confused with learning kite skill builders, or teacher centered instruction. Programmed instruction allows completely independent self-instruction. Programmed instruction teaches new skills as well as provides practice in the use of new skills. Learning kits, and skill builders provide practice and aid in the development of skills that the learner already possesses. These materials are not designed to teach basic reading skills (Thurstone, 1978).

Programmed materials come in two forms: software (books) and hardware (machines). The first programmed instruction teaching machine was

invented in 1932 by Sidney Pressey. The use of machines has evolved into computer assisted instruction, although other forms of teaching machines exist, such as tachistoscopes. It is computer assisted instruction that offers the promise of complete student self-instruction. Currently only about 12.9% of the schools in America are using computers for instruction. The subject most commonly taught using computers is mathematics. It was also found that teachers themselves did most of the programming (Woolfolk & Nicolich, 1980).

The idea of programming instruction first became an important and widely known teaching strategy in the 1950's. During the 1950's there was a lack of teachers. As a result of this lack of teachers the idea of programming instruction to the point where students taught themselves seemed a very attractive idea. It was felt that programmed instruction would allow schools to increase class sizes, as the role of the teacher became one of monitoring student progress (Woolfolk & Nicolich, 1980).

The person credited with popularizing the programmed instruction method is B. F. Skinner in his 1954 article "The Science of Learning and the Art of Teaching." In this article, Skinner put forth a number of instructional principles, the first of which being that the goal to be mastered must be stated to the learner. He believed that the material should be carefully pilot-tested, and that students should progress at their own rate. Most importantly, he stated that material should be presented in small steps, there should be constant responding by the student, and there should be immediate feedback. These principles form the basis of programmed instruction and make it different from other forms of instruction (Woolfolk & Nicolich, 1980).

B. F. Skinner is also credited with the most common form of programmed instruction. This is the Skinnerian or linear method of programming. In the Skinnerian method of programming, the student is moved through a fixed set of lessons called frames. The frames are designed so that the student can progress with a minimum of errors. In a Skinnerian program the rate of student errors should not exceed 10% (Woolfolk & Nicolich, 1980). Linear programming does not provide alternate remedial frames. In sections where students are encountering difficulty, the frames are broken down into smaller frames that the students can master. The theory behind error-free learning is Skinner's belief that wrong answers strengthen unwanted responses (Woolfolk & Nicolich, 1980).

The other form of programming is called branching. Crowder (1960) is the person credited with developing this form of programming. Unlike linear programming, branching programs do not attempt to eliminate errors but instead provide remediation frames. In branching programs students are presented with multiple-choice questions. Correct responses direct the student to the next frame. Incorrect responses direct the student to remediation frames where the student's incorrect response is explained. The advantages of branching programs are that they allow for the development of remediation frames to correct common student errors. The second potential advantage of branching is that it allows bright students to move rapidly through the material (Woolfolk & Nicolich, 1980). Much of the advantage gained through branching is lost when the materials are not carefully presented to determine common

student errors. Unfortunately, many developers of branching programs merely try to imagine what the most common wrong answers will be. A major disadvantage of branching programs is that they do not lend themselves very well to workbooks and other forms of software because of the ease with which students can become lost turning back and forth looking for the next frame (Woolfolk & Nicolich, 1980). Branching does, however, lend itself very well to computerized instruction.

Linear programs are the most common form of programmed instruction used for reading development. Workbooks, texts, and other software are the most common method for presenting programmed instruction. This is chiefly the result of the high cost of teaching machines (Miller, 1973) and the difficulties encountered when trying to present branching programs using software (Woolfolk & Nicolich, 1980; Karlin, 1980; Miller, 1973).

Programmed instruction can claim a number of advantages. The principles underlying programmed instruction are consistant with general learning constructs. Research indicates that immediate reinforcement and a hierarchy in the sequencing of learning helps facilitate learning (Karlin, 1980). Other advantages claimed by programmed instruction are that it provides well-planned materials. Programmed materials release teachers from the supervision of drills. They also provide the student with immediate reinforcement. Materials can be more individualized and a record of student errors is provided in programmed instruction (Spache, 1972; Lange, 1972).

Woolfolk and Nicolich (1980) suggest that teacher programmed instruction can be very useful for classroom teachers. They suggest that

the process of programming allows teachers to see at what points their instruction is leaving students behind. The process of breaking the material down and seeing what answers students get wrong will aid teachers in determining where students are having the greatest difficulty. Programmed instruction is also recommended as a means of providing instruction to those students that want to go beyond what is presented in the classroom. In the area of computerized instruction, Margolin and Misch (1970) suggest a wide range of uses for these materials. They suggest that computers can be used with all ages, and that computers can save teachers a great deal of time by grading and keeping records of student work.

The results of research on the usefulness of programmed instruction have been mixed. There has been a lack of carefully controlled research on programmed materials (Karlin, 1980; Ruddell, 1966; Huus, 1968). The effectiveness of programmed instruction is dependent on two key variables, namely, the actual programming of the material and the content of the material. In large part the usefulness of the programmed material is dependent upon the degree to which the person doing the programming understands the material they are presenting (Karlin, 1980). Programming is also dependent on the care with which the frames were designed and tested. Other variables that affect the results include the rate of errors allowed in the program design. Research on programmed instruction will be affected by whether the program was programmed using the linear or branching method and the medium through which it was presented, i.e., books or machines. Isolating the variables that effect research has as a result been very difficult (Karlin, 1980).

Research has not indicated that programmed instruction is any better or any worse than other forms of instruction. Lange (1972) reviewed 112 studies of programmed instruction and found that programmed instruction did significantly better than other forms of instruction in about 40% of the studies examined. In 50% of the studies reviewed, no difference between programmed instruction and other instructional methods used was noted. In 10% of the studies reviewed, programmed instruction did significantly worse than other forms of instruction. It was noted that the kind of comparative studies examined by Lange usually failed to meet an unbiased criteria. He also noted that comparative research is now avoided, since it does not contribute to instructional programming. Lange, an advocate of programmed instruction, stressed the need for research in the area of learner variables.

Lange (1972) contends that there is a definite move toward programmed instruction in the schools. However, many of the materials Lange calls programmed instruction do not meet the criteria of programmed instruction as defined earlier. The criteria that does not appear to be met are that the students be able to teach the skills to themselves, and that the material is presented in small, error-free steps. The SRA Reading Laboratory is an example of a program that does not appear to meet these criteria, although Parker (1978) in his handbook for the SRA Reading Laboratory contends that his program is completely learner independent.

A U.S. Office of Education study in 1966 by Ruddell reported that in a comparison of student achievement using basals and programmed

instruction that neither program significantly out-performed the other. Ruddell's study was a two year study using primary grade children. The emphasis of this study was a comparison of four combinations of instructional methods and their effect on graphemephoneme correspondences, and the relation of language structure to meaning. Although programmed instruction did not significantly out-perform the other instructional methods examined, it was most successful in its ability to develop children's basic structural analysis skills.

Jonassen (1979) studied the effect programmed instruction and information mapping had on students' ability to facilitate recall and the subsequent retrieval of information. At the conclusion of the study both methods had resulted in very significant gain scores. In the retrieval of information from texts, students benefitted from the structural characteristics of the mapping techniques. The recall of information not dependent on search strategies did not result in any differential effect. It can be concluded that mapping led to information gathering strategies that went beyond the simple recall of information, whereas this effect was not found among those taught using programmed instruction.

A study by Ward (1979) on the time spent learning programmed texts to mastery resulted in equal periods of time being required by both the mastery group on the programmed texts and the mastery group on non-programmed material. It was found that the treatment did aid the learning efficiency of the lower achieving students.

Cariello (1977) studied the effects of programming on the amount of time required to learn the subject matter and the amount of information

retained. His findings were that more time was spent learning the programmed material. No differential effect was noted on subsequent testing of student performance. This study was of programmed and non-programmed material in the area of math instruction.

Idstein and Carey (1979) researched the use of programmed instruction on the acquisition of grammar skills and the gransfer of these skills to theme writing. They found that programmed instruction led to significant gains in the students' formal grammar skills. It was also found that formal grammar skills did not transfer to the students' ability to write themes. This study was carried out with academically deficient students.

In the Westorchard Elementary School in New York, the school system found that student performance on standardized measures of achievement dropped significantly after their school adopted a system of programmed instruction. Their study of the problem found a number of reasons why students in this system scored poorly. They found that the students were used to the independent learning style of programmed instruction and that they were not used to the rigid conditions of a testing environment. They also found that students who were used to reading instructions silently to themselves had trouble when they had the instructions read to them. It was found that the self-paced speed of programmed instruction did not prepare the students for the sustained attention required of testing. In an attempt to reduce student test anxiety, teachers did not stress the importance of the testing and as a result students did not take the test seriously enough. It was reported that

after instruction was given to teach students test-taking skills that student performance improved significantly. The school continues to use programmed instruction in the areas of reading and mathematics (Billiard, 1977).

In another report on the application of programmed instruction, George Spache (1972) made the following observations of a program in New York City. He found that inexperienced teachers did not provide necessary instruction at critical points, and that teacher manuals did not suggest such teacher activities. He found that there was a marked regression in the amount of material the students retained over the summer. Whereas such regressions are normal in the lower grades, Spache found them to be present even among the sixth grade students. The program was often used without consideration of individual student differences, the assumption being that students would progress at their own rate and that individual differences would in this way be resolved. Spache found that this indiscriminate use of programs for entire classes often bored the bright students and frustrated the slow learners. Experienced teachers found the materials to be incomplete and that they had to provide supplemental materials although the makers of the program claimed it to be a complete system of instruction. The tendency of students to cheat was common. Students often logged the answers to materials that they had not learned. As with all linear programs, no branching frames were provided to allow remediation and correct student errors. After an error students merely continued to the next frame.

Another problem with programmed instruction is that it is not conducive to grouping or small group instruction. Experienced teachers

were not accustomed to the individualized mode of programmed instruction. Other criticisms of the program were that it presents a very limited picture of reading. By breaking learning down into very little pieces of learning material, you take away from the totality of the reading experience and that for these reasons programmed instruction does not transfer well to other materials.

Programmed instruction cannot be adapted to the child's learning modality. Unlike other forms of instruction, the material is presented to all the children in the same way and it is very difficult to adapt programmed instruction. Using the same learning system for all students ignores variations among the children such as language backgrounds, experiential backgrounds, reasoning capacities, and learning disabilities. Spache (1972) and Billiard (1977) further contend that programmed instruction limits student-teacher interaction, and the teacher becomes merely a distributor of materials. They also contend that flexibility of course content and methodology is very difficult in programmed instruction unless it assumes a relatively minor role in the total learning program.

Spache holds that the same faults that exist in programmed instruction also exist in computer assisted instruction. Computer assisted instruction offers only a static mode of presentation that is not adaptable and only offers a very limited picture of the total reading experience.

Karlin (1980), Miller (1971), and Smith (1972) all listed effective uses of programmed instruction. The most common application of

programmed instruction was with slow learners. It was felt, and research supports the idea, that the presenting of materials in small steps, where the learner can receive immediate feedback and pace himself, has a positive effect on slower learners. It was further agreed that programmed instruction is most effective when it is used to develop word recognition skills and structural analysis skills. Programmed instruction is also particularly useful in teaching socially different students.

Today few systems of programmed reading instruction exist (Miller, 1973; Karlin, 1980), and the use of programmed instruction is on the decline (Woolfolk & Nicolich, 1980). Here is a list of current systems of programmed reading (Miller, 1973):

1. Programmed Vocabulary: Appleton-Century-Crofts. This is a programmed workbook designed for the upper level.

2. Spectrum of Skills: The Macmillan Company. Six booklets designed for the intermediate grades and upper levels, that provide instruction in vocabulary development.

3. Vocabulary Growth: Coronet Films. This is a booklet for vocabulary development which is designed for the upper level.

4. Words - A Programmed Course in Vocabulary: Science Research Associates, Inc. This workbook is designed for the junior high school level. Particular attention is given to roots, prefixes, suffixes and word origins.

5. Sullivan Programmed Reading: Webster Division of McGraw-Hill Book Company. This program offers a complete system of instruction designed for the elementary grades.

6. Reading in High Gear: Science Research Associates, Inc. This program is designed for the primary grades and teaches basic reading skills.

7. Lift Off to Reading: Science Research Associates, Inc. This is a system of basic reading instruction designed for the elementary grades. Care is taken in the development of basic reading skills.

One of the important impacts of programmed instruction has been in the development of learning kits, such as the SRA Reading for Understanding and the SRA Reading Laboratory. These materials are skill developers (Thurstone, 1978) that have the advantages of providing immediate reinforcement, and individualized instruction. They also have the advantage of freeing the teacher from the supervision or routine drills.

Disagreement exists as to whether the Reading Laboratory is truly programmed instruction. If you use Skinner's original definition of programmed instruction. The SRA Reading Laboratory is a "skill development" program (Parker, 1978). Comprehension sections of the Reading Laboratory are not broken down into small, error-free steps. Error rates of 20% are allowed. The materials do not provide remediation frames where students can correct their errors. The Reading Laboratory does not fit into either of the two types of programming used in programmed instruction.

The principles of programmed instruction have been incorporated into the materials being produced by today's psycholinguists. Most notable among these is Siegfried Engelmann, the developer of DISTAR reading. Engelmann's materials incorporate the ideas first presented in programmed instruction. Engelmann's techniques use to full advantage the ideas of immediate feedback, constant student responding, and that materials should be presented in small steps. Engelmann's methods call for a lot of teacher-student interaction. It is claimed that constant monitoring of student responses by the teacher eliminates many of the disadvantages of programmed instruction (Engelmann, Osborn & Hanner, 1979).

CONCLUSIONS:

In general, there can be found no absolute advantage to the use of programmed materials. The theories upon which programmed instruction is based, immediate reinforcement and the graded sequencing of materials, have been found to facilitate learning. Their effectiveness is dependent upon the population for which they are designed, the content of the materials and their programming. Currently the information needed to strike the proper balance between right and wrong answers and how to program the proper gradation of steps for both the slow learners and fast learners, as well as how to best include programmed instruction in total curriculum, is not presently available (Huus, 1968; Karlin, 1980).

The future of programmed instruction will be on other programs built upon the principles of graded instruction and immediate feedback.

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THE RELATIONSHIP OF SELF-CONCEPT TO INDIVIDUALIZED READING

Leah J. Bedford

Abstract

This paper summarizes the literature on individualized reading from 1963 to 1979. Research studies support the belief that improved reading skills are directly related to academic achievement, role perception, and self-concept. There is considerable evidence to support this belief. A student's locus of control is predictive of future reading achievements. Structure in individualized reading gives students a sense of belonging and improves self-concept.

Student involvement in planning his reading program improves self-concept. Cross-age tutoring does not appear to improve self-concept. It was concluded that individualized reading appears to increase self-concept more than a traditional reading program.

An individualized reading program provides a learning environment where a student can learn reading skills at his own pace or rate of learning. To the remedial reader, this is very important because he finds it difficult to maintain the pace of a traditional reading program and experiences a sense of failure and loss of self-esteem. An individualized reading program provides for individual differences in learning and encourages positive attitudes toward learning to read and self-concept.

Research studies support the belief that improved reading skills are directly related to academic achievement, role perception, and self-concept. There is further evidence that pupil self-concept and sense of control are predictors of school success or failure.

In a study conducted by Purkey, Graves, and Zellner (1970) designed to explore the impact of an innovative team-teaching, completely upgraded elementary school on the professed self-esteem of pupils, the investigators reported that:

> The general findings of this study indicate that pupils in an innovative and humanistically oriented elementary school show more favorable self-esteem than pupils in a comparable, but traditionally oriented elementary school. Although the results do not take into account the length of time an individual student was exposed to the experimental school, the data suggest that prolonged exposure to the environment of the innovative school does have a positive influence on the professed self-esteem of children ages 8 to 12. (p. 170)

In another publication, Purkey (1970) wrote:

> There is considerable evidence to support the assumption that a psychologically safe and supportive learning situation encourages students to grow academically as well as in feelings of personal worth...
>
> A supportive educational atmosphere is one in which each student is made to feel that he belongs in school, that he is important, and that he is capable of learning. It is one in which praise is used in preference to punishment, courtesy is used in preference to sarcasm, and consultation is used in preference to dictation.

Concerning the influence of the teacher on self-concept, Richardson (1968) wrote:

> The teacher is in control of several aspects of learning which have a direct impact upon each child's perception of himself as adequate-worthy or inadequate and unworthy. While the parent has influenced the child's self-concept earlier, the teacher has a more powerful influence, especially in aspects of the self-concept relating to intelligence and competencies. Consciously or unconsciously the child thinks, "Who can know better than the teacher whether I am bright or dumb?" Early and careless estimates of children's abilities while often erroneous, have a lasting effect.

Further comments on the importance of self-concept were made by Soares and Soares (1973) who wrote:

> Self-perceptions cannot evolve in a vacuum. The self needs a comparative base, an external frame of reference, which comes primarily from the people surrounding the person, his interactions with them, how he perceived their views of him, and his experiences. In early childhood, the parents and other family members are primary forces for self-definition. In the school years, teachers and peers also become important, with peers particularly diluting some of the parental power but not replacing it entirely.

According to Wilson (1977), 1 out of every 4 students is likely to experience some frustration in reading and he estimates that 3 to 5 percent of school age children have serious reading problems.

Rotter (1966) advanced the theory that a student's sense of control over events in his life may be viewed by that student as dependent on his personal behavior. Rotter referred to this as "internal locus of control." If a student believes that events in his life are controlled by luck, chance, or other individuals, this is considered to be "external locus of control."

Lefcourt (1968) and Joe (1972) conducted studies which support evidence that people who consider themselves as having control over events in their personal life spend more time in intellectual activities and exhibit more intense interest in academic pursuits and that locus of control is predictive of social behavior, learning performance, and achievement-related activities. A logical extension would be to expect children who are failing or not achieving in school to be "externals."

Shaw and Uhl (1971) found that students with high external locus of control scores usually had lower reading scores, suggesting that the students with external control are not able to recognize reward possibilities and react to them.

Further studies by Veradi (1974), Brandt (1975), and Morgan and Culver (1978) regarding reading achievement especially support the view that internally controlled students make the greatest gains and that there is significant relationship between locus of control and reading achievement.

Miller (1963) reported that when using standardized tests, no reliable relationship was found between locus of control and general academic achievement in a "middle-class population when mental age effects were ruled out." Miller suggested that possibly the standardized tests that were used were not sensitive enough to measure the change in performance of a middle-class population which has been favorably influenced to the academic tasks.

Lefcourt's (1968) literature review suggested that people who attempt to overcome their difficulties are oriented toward high internal control. Lefcourt further theorized that if locus of control could be manipulated in a tutorial reading situation, then teachers could design and modify their teaching strategies to improve students' role perception and also their reading skills.

Ekwall (1973) related self-esteem and reading disabilities by stating that reading, because of its importance in society, assumes great importance as a developmental task. Failure to monitor it may interfere with the development of a child's self-esteem.

Amnesley (1974) suggested that a learning environment which increases a student's ability to be successful in reading is the type that should be set up in a tutorial program for disabled readers.

Avant and Weber (1979) conducted a study to evaluate the effect of an individualized reading tutorial program on children's locus of control and locus of evaluation.

There were 26 school-age subjects enrolled in the individualized reading program by their parents because of reading disabilities. The subjects ranged in age from 7 to 17 years.

The program consisted of individualized reading tutoring. The instruction time varied among the students from 12 to 50 sessions. During each 50-minute session, the teachers tried to emphasize self-direction, to lead the students to believe that they themselves have a lot of influence over their own learning, and to help the students accept personal responsibility for their success or failure. The teachers used weekly conferences to discuss these goals and responsibilities with each student as well as various teaching methods and materials to meet student needs.

When the students were enrolled in the program, they were administered a group of tests which included two reading tests and the Miller-Avant Locus of Evaluation-Control Scale (M-A-LOE-C) (1978), which was developed to assess locus of evaluation, locus of control, and beliefs in reinforcement in reading achievement situations. After 12 weeks, every child was readministered the M-A-LOE-C and the two reading tests and, in addition, the Pearson Produce Moment Correlation was used to

examine the relationship of pretreatment reading and pretreatment locus of evaluation/control, as well as posttreatment reading and posttreatment locus of evaluation/control.

The results suggested that disabled readers vary in the levels of locus of control and evaluation. These students as a group were far below the mean of the effective measurement which was scored toward external control. These students appeared to evaluate their actions by internal values and to believe in internal control of reinforcement. At the end of the reading program, there was no significant change in either locus of control or evaluation although there was a highly significant difference in reading ability.

Avant and Weber concluded that since locus of control correlated significantly with pre- and posttreatment reading, further research of this nature may provide additional insight into reading difficulties and individualized reading programs.

Franza (1970), Beaven (1971), and Myers (1971) are among the educators who advocate the abandonment of subject-oriented, teacher-centered methods if students are to become involved in their own learning. Student involvement improves the student's attitude toward learning because he feels he has some control over his program. This leads to an increase in self-concept as the student begins to react positively to learning.

Ellis (1971) reported on an individualized program designed to improve student attitudes toward reading which was used in grade 7 at the Queen Mary's Elementary School in Vancouver, British Columbia. A classroom was equipped with paperback novels chosen by the students and an

informal reading environment was provided that would enable the students to derive minimum pleasure from their reading. Pretests were given to determine individual strengths and weaknesses. Throughout the year reading tests were given. All students made significant gains in the abilities measured as well as an improvement in their self-concepts. The students appeared to enjoy the novels and the informal environment and on the average read more than 1 novel per month. The reactions of the parents and the objective comments of an outside observer reflected favorably on the program.

Schwartz (1972) conducted a study of 152 eighth grade students in the Princeton, New Jersey, Middle Schools. There were 113 students in the traditional reading program and 39 students in the individualized program. In a comparison of the 2 programs, it was hypothesized that the individualized reading students would read more fiction, and that the students in the traditional reading program would read less fiction, and that the traditional group would choose easier books to read. The findings showed that the students in the individualized reading group read an average of 6.3 books during the period studied and the students in the traditional reading group read an average of 4.1 books. None of the three hypotheses tested in the study were supported by the findings. It was concluded, however, that individualized reading appears to motivate readers better than the traditional reading program, and an improvement in the self-concept of the individualized group was evident.

Fader and McNeil (1966) are among those who have experimented with individualized reading at the elementary level and reported their

findings in detail. Their program was limited to training schools for delinquent boys and involved the use of large numbers of paperback books as well as local newspapers. The Stanford Achievement Test was given before and after the experiment. The results favored the individualized program not only in terms of growth in reading skills but also in improved interest and attitudes toward school. The boys in the experimental group showed twice as much growth in paragraph comprehension as those in the control group, and gained in self-concept as well. The boys in the control group showed a loss in self-concept as measured by a standardized psychological test.

Kenner (1967) conducted a study of pupil independence as it related to disadvantaged children. She advocated a structured approach to teaching individualized reading. Her experience showed that students respond best to doing the same thing at the same time. Their self-concept improves when they are accepted as part of a group or learning experience. For example, in her classes, all the students read silently at the same time from the books they had selected earlier while the teacher conferred with individual students. Skill practice followed with materials organized around individual weaknesses.

Keener stressed the need for disadvantaged children to become physically involved in their learning. Audiovisual aids which they can manipulate are important and can be used during skill practice as well as in more creative periods. She also suggested pairing students for skill practice as a way of promoting involvement and developing independence and self-concept.

Marani and Tirris (1970) conducted an experiment in an inner-city seventh grade which dealt with reading problems through a program of sequential skills development, individualized practice in specific skills, independent reading, and definite motivation. This program made use of individualized pacing, which allowed the students to proceed at their own rate of learning, more than it did individualized content. The results showed that the experimental group gained an average of 1.0 years between September and June, whereas the control group gained an average of .6 years. The authors of this study are in basic agreement with Keener in their emphasis on structure while attempting to individualize. Structure tends to increase unity giving the students a sense of belonging thus improving their self-concepts.

Newton (1972) studied the effects of structure on secondary school remedial reading programs for the Houston, Texas, Public Schools. He, also, demonstrated that structure in the instructional program is vital to its success and that structure does not have to be provided by the use of any one published program. A more functional structure can be provided by a core curriculum of predetermined, sequential skills, an accompanying group of materials and activities on various levels to teach and reinforce those skills, and evaluative measures to determine the student's achievements. This provides a source from which the teacher can choose appropriate materials for use with a specific child.

Also, Newton said, the provision of structure within the classroom environment establishes a framework which gives security to the student who has difficulty in organizing himself and controlling his environment. To provide that structure, rules must be set, consequences determined,

procedures consistently followed, and directions for activities clearly explained.

During the individualized portion of the program, Newton utilized a lesson plan form for each student which offered structure to his day. This did not eliminate the student's choice of materials because each student had input into the planning of his assignments and could accomplish them in any order.

Newton reasoned that a student's own self-confidence is of utmost important and a generative force in his future achievement. The more successful an experience is for the student the more enjoyment he gains from the reading act, the more likely he is to read independently, and the greater his courage when he attempts more difficult tasks.

Newton stressed the need to involve each student in his own program from the beginning. After the initial diagnostic tests were administered to determine the student's strengths and weaknesses, the results were shared with the student and with his parents, teachers, and counselor. When reviewed with the student, this information and his own impressions of his needs were used to establish general objectives for his program. Once a week, the reading specialist met with the student to discuss the previous week's assignments, the materials used, the achievements of the goals projected for the week, and to formulate goals for the following week.

Newton found that through this program the student gained a better understanding of himself, became more involved in his program, and moved a step closer to self-sufficiency. Self-concepts began to improve as the students became aware of their personal achievements through the program.

At the P. K. Yonge Laboratory School in Gainesville, Florida, Guttinger (1972) conducted a study based on the premise that growth in feelings of self-worth, adequacy, and confidence are more conducive to the learning process than the direct teaching of reading. The subjects included students in grades 6, 8, 9, and 11. The 9-week program included pre-testing, individual planning conferences, 6 weeks of laboratory experience, posttesting, and final evaluation conferences. After the initial testing, the teacher-counselors scheduled individual conferences to provide an opportunity for each student to look realistically at himself as a reader. The results of his reading test were discussed with the student. Goalsetting by the student was encouraged and the responsibility for growth in reading was given to him. The student was assisted in developing an individualized program focusing on the needs he felt were important. There was no set curriculum and no grades. Care was taken to prevent any student from developing a sense of failure.

The results showed reading rate gains to be significant at all 4 grade levels. The sixth grade students gained 2.6 months in story comprehension and 4 months in paragraph comprehension. Gaines were significant in some of the other levels also. Gains in vocabulary were significant at all levels. It was concluded that it is important that each individual maintain and/or gain confidence in himself at whatever level he is functioning. Learning to read can be visualized as a process of developing a wide variety of skills throughout our lives. The level of such skills can be identified and systematically improved through a realistic course of action.

Texley and Dvorak (1973) reported on a multiple activities reading program used in the Omaha Public Schools called the Individualized Study Center (ISC) program. There were 4 ISC's serving approximately 150 students each. The purposes of the program were to develop a curriculum and techniques, especially in reading, which would raise the achievement level commensurate with the ability of educationally disadvantaged students, and to support the program with the type of services needed to make it successful.

The ISC for grades 7 to 9 served students who were not able to function in the regular school program by providing individual instruction and direction for their future. The prime foci for the ISC were acceptance, patience, and concentration upon the positive attributes of each individual student. One of the main objectives was to provide an environment which would lead to wholesome personal and social adjustments. Individual counseling was used by teachers and the counselor to help each student know himself and find acceptance of himself. The centers strove to provide an educational environment in which meaningful learning could take place. The centers proved successful in remediating students, and parents reported an improvement in attitudes in their children toward school, learning to read, and themselves.

Worcester Public Schools, Worcester, Massachusetts (1973) operated an Operation Reading Base Program (ORB) for Title I students during the 1971-1972 school year. The program operated at 21 schools. The number of teachers assigned to a school varied in ratio to the number of students eligible for the program. Participants were educationally disadvantaged

students in grades 1 through 6. Students were identified as educationally disadvantaged by achievement tests and by the evaluations of classroom teachers and school principals.

One of the major goals of the program was individualized instruction, so that each student could receive instruction in his particular weak areas. Teachers were encouraged to limit their classes to 4 or 5 students so that this individualization could occur. Unfortunately, the teachers met with little success in meeting this objective. Many teachers had classes of up to 30 students, rather than 4 or 5, and did not have time to prepare individualized lessons. Others indicated that the conditions under which they had to teach prevented this type of instruction.

Many of the children in the ORB Program had been below grade level in their school work for some time. Therefore, they were very discouraged and had low self-images. One objective of the ORB was to provide these students with specific success experiences to improve their self-images and self-confidence. The presence of success experiences in these classes required designing each student's program so that he could do his work successfully, and then giving praise to that student for completing the work satisfactorily. The overwhelming majority of the teachers appeared to have been aware of this goal and attempted to meet it with their students. The conclusions drawn were that the basic plan for the program was good but that the failure of all teachers to individualize prevented accurate analysis. There were many environmental problems that had to be overcome before the project could continue.

The administrators indicated that they felt definite progress had been made.

Forte (1975) investigated the effect of an individualized remedial reading program on the self-concept of low achieveing third grade children. The program was known as the Philadelphia Checkpoint Center Program. In an effort to assess the effectiveness of Checkpoint on self-concept, an experimental group of 184 third grade students was identified and exposed to the program for 50 days. A control group was composed of children who were identified as low achievers but who did not participate in the program. The Reading Section of Form A of the California Achievement Test was administered prior to the 50-day period and Form B was administered at the end of the study interval to the children in both the control and the experimental groups. Three independent self-concept scales were administered to both groups before and after the self-concept period. Two of the self-concept measures were self reports while the third, an inferred self-concept assessment scale, was completed by the classroom teachers. The results indicated that positive changes in the self-concept and in the reading achievement of children exposed to the Checkpoint Program during the experimental period were significantly greater on all measures than changes experienced by the control group.

Miller (1976) studied 57 ninth grade reading students in 2 junior high school classes to Lower Merion Township, Pennsylvania. They had been assigned to remedial reading on the basis of poor sixth grade performance on the Total Language section of the Metropolitan Achievement Test and the recommendation of their sixth grade teachers.

The program for the experimental group consisted of a 30-week program designed to bring about changes not only in reading competency, but also in self-concept and classroom behavior which utilized certain principles of self-concept theory and behavior modification theory that were not applied in designing the control group's program.

Instruments used to evaluate the effects of the two programs included the Coopersmith Self-Esteem Inventory, the Stanford Diagnostic Reading Test, and the Coopersmith Behavior Rating Form. The findings did not indicate significant differences between the experimental and control groups' final scores with regard to reading competency, self-concept, or classroom behavior. Findings in correlation matrix, however, supported the assumed interrelationships of reading, self-concept, and classroom behavior explored in the literature. Miller concluded that more research over a longer period of time is needed to give the carefully developed experimental curriculum an enlarged opportunity to demonstrate its potential worth.

Saunders (1976) studied students in secondary schools to determine if students who were involved as tutors in a cross-age tutoring program with elementary students would show an attitude change in self-concept, in reading, and toward school when compared to non-tutors.

The students were selected from ninth, eleventh, and twelfth grade classes in San Diego, California. They were given pretests and posttests of a Semantic Differential instrument over a 16-week period from September, 1975, through January, 1976. Attendance information for the subjects and the control students was obtained to note changes in the absentee rates for the subject group and the control group.

The results indicated that student tutors from the senior high and the junior high school showed no significant changes in attitude toward reading, toward self, or toward school. Second, the student tutors from the junior high school and the senior high school showed no significant changes in attendance when compared to non-tutors although the junior high school tutors had better attendance rates when compared to non-tutors. Third, the student tutors showed no decrease in attitudes toward reading, toward self, and toward school. Fourth, the tutors showed a high regard toward reading, toward self, toward school on the pretest and posttest.

This survey of individualized reading programs has continually shown that individualization provides a learning environment where each student is made to feel he belongs, he is important, and he is capable of learning. Traditional reading programs do not appear to have been as successful in providing such an environment. In this survey the relationship between individualized reading and self-concept has definitely been established.

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NEUROLOGICAL CORRELATES OF LEARNING DISABILITIES

by Charleen D. Peryon

The term "neurological correlates" in relation to learning disabilities generally refers to those aspects of the central nervous system thought to be responsible for processing information. Over the years, some workers in the field have believed that the cause of a child's inability to learn basic academic skills was due in large measure to an unstable or inefficient functioning of the input-output mechanism by which information is thought to be processed in the brain. This malfunctioning would be evidenced by lack of, or poor achievement in one or more of basic academic subjects, chiefly reading. With academic deficits, there would also be manifested certain conditions such as hyperkinesis, hypokinesis, distractability, perseveration with or without attendant, poor motor coordination, at the gross and/or fine motor level. Any one, or a combination of these, could be compounded by inappropriate social skills. A profile of a child exhibiting these characteristics would usually result in a diagnosis of "minimal brain damage" or dysfunction (MBD), or minimal neurological impairment with or without sensory defects. Minimal neuro.ogical dysfunction in the United States dates back to the work of Orton (1928), when he called it "Strephosymbolia," meaning literally "twisted symbols" perceived by a child with a reading disability. The term "minimal brain dysfunction" originated with the work of Strauss and Lehtinen (1947). The diagnosis of MBD, however, was not based on the usual medical measures such as an abnormal electroencephalogram (EEG) or even abnormal soft neurological

signs, i.e., absense of certain reflex mechanism, but rather on the behaviors of the child in the learning situation.

For the last 30 years, particularly the last 15, there has been an on-going conflict among workers in the field. Not all accept the notion of the existence of MBD as a correlate of learning disabilities. Some, who acknowledge the possible presence of MBD in relation to learning problems, prefer to view knowledge of it as helpful in prevention but of little value in remediation. (Hofmeister, 1975; Haring and Bateman, 1977). Many people in the field today, however, still utilize the approach begun by Strauss and Lehtinen (1947) and those who immediately followed them with various perceptual-motor and psycholinguistic methods intended to ameliorate basic neurological learning dysfunction. A brief description of these early approaches can be found in Kirk (1972). These approaches are based on the theories set forth by Cruickshank (1966), Myklebust (1960, 1963, 1964, 1967). Frostig, et. al (1964), Kephart (1964), Wiseman (1964) and Getman (1965) with others.

During the first conference of the Association for Children with Learning Disabilities, disagreement was apparent from the beginning. Kirk (1963), while acknowledging possible malfunctions of central nervous system, espoused the behavioral approach to diagnosis and remediation, while Myklebust (1963) and Kephart (1963) proposed remediation of basic ability processes. Interestingly enough though, if one applies Kephart's suggestions (p. 27-32) to academic tasks, they will actually be in agreement with the behaviorist view. At the same time that perceptual-motor development practices were being used, Donald Durrell

(1964) disclaimed the neurological theory when he said that all that is needed is "efficient instruction aimed at remediating the basic subskill deficits." Durrell stated further "that psychiatric, neurological and sociological explanations of reading failure appear to be unimportant and misleading" (Durrell, 1964, p. 71). Connors (1966) discussed information-process breakdown with the need to remediate through identified preferred modalities. Although he presents no data on the correlation between process deficits and reading problems, he suggests the process deficits may underlie the cause.

Kirk (1966) held fast to behavioral assessment and treatment (1966, p. 44). That approach was supported by Engelmann (1969), Bateman (1972), Cohen (1972), Ysseldyke (1974), and Hofmeister (1974). The pendulum continued to swing in both directions, while during the same period, there are those who are proposing diagnosis aimed at identifying and remediating ability process deficits, Spaulding (1976), Van Nagel (1976), Podhajski (1976). Concurrent with a preponderence of views favoring diagnostic measures for neurological dysfunction, are programs funded by the federal government to treat MBD children by use of perceptual-motor training. Gottlieb (1975) and N. Y. Board of Education (1976) have reported such programs. This is quite surprising when to date, no specific data exist to support the notion that remediation of basic ability processes will enhance academic skill deficits. Sapir (1976) discusses the various conflicts in definitions, diagnosis, and treatment, along with the effect of failure itself on a child's self-esteem. She states "that although the terms minimal brain damage and specific

learning disability have been equated, there is no justification that all learning disordered children are brain damaged." She concludes with "what children need is not laterality manipulation or multi-sensory training bombarded with extraneous elements, but a well structured, organized presentation of salient features with no irrelevant contributions" (p. 11). Cushman (1976), in a position paper developed by a Region 1 Task Force of the State Education Directors of all New England States, reports that it was concluded that the actual label and category of learning disabilities should be eliminated; that what is necessary is better cooperation between special and regular educators. A review of related literature from 1950 to 1976, International Federation for learning Disabilities (1976) stated that "the findings of previous research have failed to conclusively demonstrate the effectiveness of ability training."

Because this review of literature has not demonstrated the effectiveness of ability training to remediate basic skills deficits in academic learning, one may conclude that there is definite need for data-based research in this area.

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